

# **Systemwide Plan for North Carolina State Parks**



NC Department of Natural and Cultural Resources



# North Carolina Department of Natural and Cultural Resources

Pat McCrory Governor Susan Kluttz Secretary

To the Citizens of North Carolina:

It is my pleasure to present the 2015 Systemwide Plan for the North Carolina Division of Parks and Recreation. The Systemwide Plan is a 5-year plan that provides a record of recent activities and accomplishments and offers strategic direction for the future of state parks and recreation.

North Carolina's state parks system is on the cusp of its 100<sup>th</sup> anniversary in 2016. Much has been accomplished in the first century of the system's ongoing development and evolution, and we are confident that the ensuing 100 years will emulate the system's overall mission based in education, recreation, conservation and stewardship. North Carolinians and visitors to our state have strong commitments to and passion for our parks, as demonstrated by the record-breaking attendance of 15.6 million visitors in 2014. Our visitors come to immerse themselves and their spirit in a myriad of exceptionally beautiful and diverse natural venues, participate in a wide array of outdoor recreational opportunities and to expand their knowledge, understanding and appreciation of all things natural. We deeply value and honor our visitors and hope that this document will create feelings of pride, excitement and appreciation for North Carolina's state parks in today's visitors and future generations of visitors to come! The amazing collection of unique and precious jewels we call North Carolina State Parks would not be with us today without the active participation, support, advocacy and advice of our visitors, legislators, local governments, land trusts, friends groups, businesses, scientists, educators, environmentalists and other wonderful partners.

The people who make-up the administrative and operational forces of the North Carolina Division of Parks and Recreation are continuously thinking about and implementing changes which are conceived and designed to improve the quality of our visitors experiences and satisfaction at all of our parks. In concert with this ambition, is our understanding that our citizens and visitors expect these changes to reflect a world-class example of natural resource protection, low-impact recreation and outdoor education. President Theodore Roosevelt is remembered in this light: "The nation behaves well if it treats its natural resources as assets which it must turn over to the next generation increased and not impaired in value." As we look back on the last 99 years, there's absolutely no doubt that we have held steadfast to this vision. We commit to you, now, that this same vision will continue to drive our energies and create the manifestations of our passion for this "Naturally Wonderful" park system!

Special events are planned at every state park during our centennial celebration in 2016. Please come and join us so you can see for yourselves what helps to make North Carolina such a special place and a favorite destination for millions of people across North Carolina, America and the world!

Sincerely,

Michael A. Murphy, Director

North Carolina Division of Parks and Recreation

# **EXECUTIVE SUMMARY**

The years from 2009 through 2014 brought about a number of challenges and opportunities for the Division of Parks and Recreation (DPR). After nearly two decades of unprecedented growth, expansion of the North Carolina state parks system slowed considerably from 2009 through 2014 due to the depressed economy. Growth and capital development in the parks was also curtailed by reduced funding for the Parks and Recreation Trust Fund. From 1999 through 2008, North Carolina established 15 new state park units and acquired 46,340 acres. From 2009 through 2014, one new unit was established and 19,937 acres were added to the state parks system.

Like many states, North Carolina is experiencing the lingering effects of a nationwide economic downturn. Long term goals for the state parks system remain the same, yet the system's strategic directions have been impacted by the challenges of current times. Since 2008, the state parks system has implemented many improvements to efficiency and contributed in significant ways to support job growth and economic development in North Carolina. Although funding for land acquisition and capital improvements has been curtailed, the demand for low impact outdoor recreation and outdoor educational opportunities has not diminished. This is especially apparent in the record breaking 2014 visitation number of 15.6 million across the park system. There still remains much to do given identified future land acquisition needs of more than \$286 million and future facility construction needs of more than \$466 million.

- The park system now totals 74 units with 224,647 acres (as of December 31, 2014) and an annual visitation of 15.6 million visitors in 2014.
- Key purchases were approved by the Council of State in 2009 to establish Grandfather Mountain State Park.
- In 2009 interim facilities were opened at Mayo River State Park in Rockingham County including the centerpiece, a restored pavilion-style picnic shelter designed by renowned architect Antonin Raymond.
- Interim facilities were opened at Carvers Creek State Park in 2013.

The system's statutory mandate is to protect representative examples of the state's significant archaeological, geological, scenic, recreational, and biological resources. These resources have been categorized into 108 themes in order to track how well the system is accomplishing this mandate.

- In the last five years, representation of these themes in the state parks system has improved. Seventeen biological themes are better represented than 5 years ago.
- Two of these are now listed as adequately represented. Despite the recent gains several themes continue to be under-represented.

Major trends that will affect public recreation in North Carolina include projections for continued population growth and land development. North Carolina continues to experience significant in-migration, and average life expectancy is increasing. In addition to population growth, outdoor recreation demand has also been fueled by increased interest and participation. These trends underscore the importance of conserving land and water resources, providing additional recreational opportunities in appropriate places, and developing environmental education facilities and programs to enhance appreciation for the state's natural heritage and to support efforts to promote public health.

# **Strategic Directions**

As North Carolina works its way out of the economic downturn and the state parks system looks towards its 100<sup>th</sup> anniversary, we have set a course to meet the increasing demands for protection of natural and scenic resources and low impact outdoor recreation. The current economic conditions have reduced the funding available for state park land acquisition and facility development, while the demand for low-cost recreational opportunities offered in the state parks continues to rise. Public support for open space protection and new park units remains high. There is a continuing need to protect important natural resources and to provide outdoor recreation opportunities. It will also be important for the state parks system to continue to improve in other ways. To accomplish these goals eight strategic directions were identified:

#### 1. Continue Expansion Of The State Parks System

Despite economic challenges, the state parks system can continue to grow and improve. North Carolina continues to be an attractive place for development, and strong population growth is anticipated in the coming decades. With reduced revenues, there will be continued emphasis on careful planning and evaluation of statewide priorities to ensure the best use of more limited funding. As the state parks system enters its second century, new strategic planning efforts will be implemented to meet the demands of outdoor recreation and natural resource protection for the next 100 years.

#### 2. Provide The Best Possible Visitor Experience

DPR can improve the quality of the park visitor's experience by better coordinating all aspects of the operation to focus on connecting visitors to the state's unique natural resources in a purposeful, planned manner. The visitor experience has two components. The internal experience is the visitor's perspective, which is created by a combination of feelings, sensations and prior experiences. This is unique to every visitor. The external component consists of the many separate pieces outside the visitor – the road conditions in the park, the cleanliness of the campgrounds, the clarity and readability of park signs, and the friendliness of park staff are just a few examples. Integrating all these pieces is the key to providing great visitor experiences.

#### 3. Increase Efficiency

The recent rapid growth of the state parks system, increased visitation, and high public interest in Division services has placed great demands on DPR's resources and capabilities. DPR operates and maintains state park units open to the public 364 days per year (all park units are closed on Christmas Day), including law enforcement, public safety, education, natural resource protection, and visitor services. In addition, much work remains to be done to acquire, plan, staff, and develop newly established park units. It will be essential to increase DPR's organizational effectiveness, and to foster efficient use of funds and resources available to the division, while maintaining excellence in state park operations and stewardship.

#### 4. Support Local Economic Development

The state's rural areas have been increasingly turning to ecotourism for economic growth and stability. The state parks are important regional attractions that can form the cornerstone of these local efforts. In addition, DPR can support local economic development by participating in local and regional tourism initiatives, by coordinating multi-jurisdictional recreation planning, by offering grants for local park and trail projects, and by providing environmental education opportunities for schools and universities. The division will look for innovative ways to support local economic development, while adhering to the mission and long term goals of the state parks system, keeping public costs reasonable, and avoiding competition with the private sector.

# 5. Support State And Local Health And Wellness Initiatives

Studies show the average American boy or girl spends just four to seven minutes in unstructured outdoor play each day, and more than seven hours each day in front of an electronic screen. This lack of outdoor activity has profoundly impacted the wellness of our children. Childhood obesity rates have more than doubled in the last 20 years; the United States has become the largest consumer of ADHD medications in the world; and pediatric prescriptions for antidepressants have risen precipitously. The Division will develop partnerships with public and private health organizations to explore ways to use the state parks to encourage physical activity and healthy lifestyles.

#### 6. Improve Natural And Cultural Resource Stewardship

The ecosystems and cultural features protected by the state parks system often represent the highest quality examples of the state's natural landscape and cultural heritage. In many cases, these ecosystems and cultural features are also among the most threatened. The Division of Parks and Recreation is responsible for the protection of the natural and cultural resources within the state parks system. The primary objective of the Division's natural resource management initiatives is to correct or compensate for the disruption of natural processes caused by human activities. These initiatives include the reintroduction of natural fire regimes, restoration of natural communities, and removal of exotic invasive species. The primary goal of cultural resource management is to protect and preserve historically significant features.

#### 7. Increase Revenue Generation

The recent economic downturn accentuated the need for increased revenues as state resources have been continually stretched. By increasing revenues, DPR can meet the challenges of increased visitation and demand for services, while reducing the need for additional appropriations. Increased revenues will allow DPR to continue to support the North Carolina brand with operational excellence and affordable amenities.

#### 8. Expand Marketing Efforts

The North Carolina state parks system could be considered one of the state's best kept secrets. The state parks system needs to continually promote the numerous qualities which make it an attraction and source of joy for numerous citizens of North Carolina and visitors to the state. The state parks system must continue to attract visitors and look to groups who are underserved as park users. DPR marketing efforts should be coordinated with the efforts of VisitNC and local tourism initiatives.

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# CHAPTER ONE ACCOMPLISHMENTS

# **Establishing New Units**

After nearly two decades of unprecedented growth, expansion of the North Carolina state parks system slowed considerably from 2009 through 2014. Growth and capital development in the parks was also curtailed due to reduced appropriations to the Parks and Recreation Trust Fund, and changes to its funding source. From 1999 through 2008, North Carolina established 15 new state park units and acquired 46,340 acres. From 2009 through 2014, no new units were established and 19,937 acres were added to the state parks system.

During the five-year span addressed in this systemwide plan, several key events led to securing critical pieces of property and making them available to the public. The North Carolina Council of State in 2009 approved the state's purchase of Grandfather Mountain to become the newest state park. The state acquired 2,456 acres on the landmark mountain for \$12 million from the Morton family and Grandfather Mountain Inc. The acquisition also included a conservation easement on 749 acres. Grandfather Mountain, with its 5,946-foot Calloway Peak, has been a wildlife sanctuary and nature preserve for decades, boasting 16 distinct habitats and 73 rare species. The mountain contains the headwaters of both the Linville and Watauga rivers.

The Division of Parks and Recreation opened interim facilities at the new Mayo River State Park in Rockingham County in 2009. The restoration of a pavilion-style picnic shelter, designed by renowned architect Antonin Raymond, is the centerpiece of the project that also includes picnic grounds, restrooms, a hiking trail and a ranger contact station at the 1,961-acre state park, authorized by the N.C. General Assembly in 2003.

Carvers Creek State Park in Cumberland County opened to the public in 2013. The park offers hiking, picnicking, fishing and interpretive programs at interim facilities at the historic Long Valley Farm access. Authorized in 2005 as part of the division's New Parks for a New Century initiative, Carvers Creek encompasses 4,332 acres in two principal parcels. It is the eighth state park opened since 2001.

Carvers Creek was created in close partnership with Fort Bragg and The Nature Conservancy, which donated Long Valley Farm and aided in the acquisition of important tracts in the park's nearby Sandhills area adjoining the U.S. Army military installation at Fort Bragg. A 2012 master plan for the state park recommends that the 2,912-acre Sandhills area will ultimately be the site for a visitor center, camping and other park amenities, but that much of the property, with its fragile ecosystem, will be preserved in its natural state.

The 1,420-acre Long Valley Farm was originally the estate of James Stillman Rockefeller, who bequeathed it to The Nature Conservancy upon his death in 2004. It was once part of the Rockefeller family's larger Overhills estate. At the site, traditional state park facilities such as hiking trails, picnic grounds, fishing areas and a ranger contact station have been integrated among the historic structures. The estate's residence, built in 1939, is on the National Register of Historic Places and is complemented by a large pavilion, a 100-acre lake, a small mill/power plant and numerous agricultural outbuildings. In addition to stands of longleaf pine, the farm is

home to federally endangered red-cockaded woodpeckers, fox squirrels and carnivorous pitcher plants. Interim facilities at the park represent an investment of \$756,000 from the N.C. Parks and Recreation Trust Fund.

Hanging Rock State Park in Stokes County was expanded with the addition of a former 4-H camp on 716 acres, following action by the N.C. General Assembly in its 2014 session. Operations of the former Camp Sertoma 4-H Education Center, also known as the Vade Mecum Springs property with Moore Springs Campground, was folded into those of the state park. Specifically, the legislation authorized the N.C. Department of Administration to transfer the property for inclusion in the state parks system.

Vade Mecum Springs is a Stokes County landmark, having been developed in the 1890s as a resort. It was operated as a retreat and summer camp by the Episcopal Diocese and Easter Seals until its acquisition by North Carolina State University in 1981 for its 4-H program with involvement by Sertoma clubs. The Vade Mecum facilities include a campground complex with nine miles of mountain biking trails and access on the Dan River, a lodge, recreation hall, swimming pool, 13 cabins, equestrian barn and trails, chapel and athletic fields.

# **Land Protection**

A total of 19,937 acres have been added to the state parks system from 2009 through December 31, 2014.

Table 1.1 State Parks System Land Acquisition 2009-2014

STATE PARKS	1/1/2009	12/31/2014	
(land area only, not easements)	Size (acres)	Size (acres)	Acreage Added
Bay Tree	609	609	0
Carolina Beach	420	420	0
Carvers Creek	1,395	4,332	2,937
Chimney Rock	4,111	6,270	2,159
Cliffs of the Neuse	892	892	0
Crowders Mountain	5,126	5,126	0
Dismal Swamp	14,344	14,432	88
Elk Knob	2,898	3,672	774
Eno River	4,139	4,197	58
Fort Macon	424	424	0
Goose Creek	1,672	1,672	0
Gorges	7,443	7,709	266
Grandfather Mountain	0	2,644	2,644
Hammocks Beach	1,155	1,155	0
Hanging Rock	7,011	7,869	858
Haw River	1,334	1,379	45
Jockeys Ridge	426	426	0
Jones Lake	1,669	1,669	0
Lake James	3,515	3,515	0
Lake Norman	1,923	1,923	0
Lake Waccamaw	1,759	2,201	442
Lumber River	9,239	11,259	2,020
Mayo River	1,942	2,187	245
Medoc Mountain	3,893	3,893	0

Merchants Millpond	3,352	3,447	95
Morrow Mountain	4,496	4,496	0
Mount Mitchell	1,946	1,996	50
New River	2,326	2,878	552
Pettigrew	4,471	5,830	1,359
Pilot Mountain	3,648	3,663	15
Raven Rock	4,694	4,694	0
Singletary Lake	649	649	0
South Mountains	18,048	18,627	579
Stone Mountain	14,210	14,351	141
William B. Umstead	5,592	5,592	0
35 State Parks	140.771	156.097	15.326

STATE RECREATION AREAS	1/1/2009	12/31/2014	
(land area only, not easements)	Size (acres)	Size (acres)	Acreage Added
Falls Lake	5,035	5,035	0
Fort Fisher	287	287	0
Jordan Lake	3,916	4,558	642
Kerr Lake	3,376	3,376	0
4 State Recreation Areas	12,614	13,256	642

STATE NATURAL AREAS	1/1/2009	12/31/2014	
(land area only, not easements)	Size (acres)	Size (acres)	Acreage Added
Baldhead Island	1,260	1,260	0
Bear Paw	125	384	259
Beech Creek Bog	120	120	0
Bullhead Mountain	365	365	0
Bushy Lake	6,343	6,343	0
Chowan Swamp	6,066	6,066	0
Hemlock Bluffs	92	97	5
Lea Island	25	25	0
Lower Haw River	1,022	1,025	3
Masonboro Island	106	106	0
Mitchells Mill	93	93	0
Mount Jefferson	607	975	368
Occoneechee Mountain	162	190	28
Pineola Bog	91	91	0
Run Hill	123	123	0
Sandy Run Savannas	2,538	2,538	0
Sugar Mountain Bog	102	102	0
Theodore Roosevelt	265	265	0
Weymouth Woods	900	915	15
Yellow Mountain	0	3,111	3,111
20 State Natural Areas	20,405	24,194	3,789

STATE LAKES	1/1/2009	12/31/2014	
(land area only, not easements)	Size (acres)	Size (acres)	Acreage Added
Bay Tree	1.418	1.418	0

Jones	224	224	0
Phelps	16,600	16,600	0
Waccamaw	8,938	8,938	0
Salters	315	315	0
Singletary	572	572	0
White	1,068	1,068	0
7 State Lakes	29,135	29,135	0

STATE RIVERS	1/1/2009	12/31/2014		1/1/2009	12/31/2014
(land area only, not easements)	Size (acres)	Size (acres)	Acreage Added	Length (miles)	Length (miles)
Horsepasture	0	0	0	4.5	4.5
Linville	0	0	0	13.0	13.0
Lumber	0	0	0	102.0	102.0
New	0	0	0	26.5	26.5
4 State Rivers	0	0	0	146.0	146.0

STATE TRAILS (land area only, not easements)	1/1/2009 Size (acres)	12/31/2014 Size (acres)	Acreage Added	1/1/2009 Length (miles)	12/31/2014 Length (miles)
Deep River	1,274	1,274	0	0	0
French Broad River	0	0	0	67	67
Mountains-to-Sea	511	691	180	494	609
Yadkin River	0	0	0	130	130
	1,785	1,965	180	691	806

System Totals 204,710 224,647

2009-2014 acres added to SPS 19,937

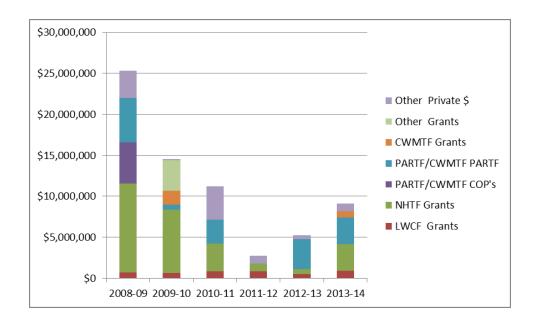


Figure 1.1 North Carolina State Parks Land Acquisition Funding Sources

# **Attendance**

For the third straight year, attendance at North Carolina's state parks and state recreation areas in 2013 hovered at a record level with 14.2 million visits, however visitation increased 10% in 2014 to 15.6 million.

**Table 1.2 North Carolina State Parks Attendance** 

Year	Total Attendance
2009	14,251,310
2010	14,189,403
2011	14,255,859
2012	14,198,796
2013	14,172,661
2014	15,584,353

# **Partnerships in Conservation Across North Carolina**

Partnerships between the state parks system and conservation organizations across North Carolina have been invaluable in the effort to protect some of the state's most valuable natural resources. Partnerships are based on a shared goal of protecting these outstanding resources for future generations. Conservation organizations, such as local land trusts, play an important role in the process by helping identify significant resources, contacting land owners and moving quickly to acquire properties on a short deadline, if needed. Without these partnerships, the conservation of significant areas would be more difficult, if not impossible. Notable partnerships include:

- The Conservation Fund and the state parks system have been working jointly on a number of projects, including the acquisition of the mainland tract at Hammocks Beach State Park and potential land protection near Mount Mitchell State Park.
- Audubon North Carolina and the state parks system have been working on land acquisition and conservation management for Lea Island in Pender County and Warwick Mill Bay in Robeson County.
- State Parks continues to work closely with The Nature Conservancy on a number of projects including
  additional land near the Profile trail at Grandfather Mountain to establish a connector trail to a
  proposed new trail head off NC 105, land acquisitions at Chimney Rock State Park totaling 250 acres,
  and additional properties at Carvers Creek State Park.
- Foothills Conservancy of North Carolina continues to be an excellent partner in assisting with land acquisition projects at South Mountains State Park that will eventually connect the park to US 64 and provide potential future public access to the west side of the park.
- State Parks is working in partnership with the Blue Ridge Conservancy, the NC Wildlife Resources
   Commission biologists and the US Fish and Wildlife Administration to protect roosting and breeding

sites near Beech Creek Bog in Watauga County for the federally listed Virginia Big Eared Bat.

- State Parks continues to be an active member of the North Carolina Sandhills Conservation Partnership
  geared to the preservation, restoration, and conservation of unique sandhills ecosystem and species
  such as the red cockaded woodpecker.
- State Parks continues to work closely with the Southern Appalachian Highlands Conservancy on a
  number of projects at Yellow Mountain State Natural Area totaling over 2,000 acres. These include land
  to connect the state natural area with the Pisgah National Forest, and in the future, a hiking trail
  connection to the Appalachian Trail.

# **Capital Improvements**

Appropriations and Parks and Recreation Trust Fund monies totaling approximately \$70 million were spent at state parks from 2009 to July 2014 for construction of new facilities, major improvements to existing facilities, and maintenance. Forty-eight major capital improvement projects were completed as well as numerous smaller projects. These projects included construction of visitor centers, campgrounds, trails, and restrooms and other support facilities.

#### **Building Green**

The state parks system expanded its efforts to promote planning and construction of infrastructure and buildings that are environmentally responsible and ecologically compatible. The division adopted a policy requiring the pursuit of Leadership in Energy and Environmental Design (LEED) certification through the U.S. Green Building Council's LEED Green Building Rating System for all new, or significantly renovated, buildings having 5,000 square feet or more. Through these efforts, North Carolina has become a national leader in pursuing LEED certification for buildings in the state parks system.

Sustainable and green buildings typically require additional design services and features that are not included in traditional construction. In most cases, the additional costs are recovered through energy savings and other factors. While multiple types of environmentally sound, innovative building technology may be considered, the division is particularly interested in technologies that address:

- Ecological site design: on-site erosion control, water purification/pollution reduction and stormwater management.
- Transportation: promoting bicycle, pedestrian and transit use where possible.
- Waste reduction: building reuse, job site recycling and efficient use of materials.
- On-site management of sewage and organic wastes, such as gray water systems and biological wastewater treatment
- Energy efficiency in areas such as thermal envelopes, space and water heating, lighting, controls, and appliances.

- Renewable energy: photovoltaics, geothermal pumps and wind turbines.
- Water efficiency: irrigation techniques, rainwater harvesting for toilet flushing.
- Materials and resources: durable building envelopes and long-lived materials or assemblies, recycledcontent materials, safer materials and innovative application of natural materials.
- Indoor environmental quality: pollution reduction, worker and occupant safety, air cleaning, humidity control, and thermal comfort.
- Operations and maintenance: monitoring energy, water, waste, air quality, and transportation use along with resource-efficient operation practices.

All new and significantly renovated projects for buildings are evaluated for possible LEED certification. Careful consideration is given to renovating old buildings versus new construction as well as using previously disturbed sites whenever possible. The division has received 7 LEED certifications for projects at Fort Macon, Lake James, Raven Rock, Cliffs of the Neuse, Merchants Millpond, Pettigrew, and Gorges state parks (5 LEED Gold and 2 LEED Certified). In 2015, the Lake Norman Visitor Center was completed and is expected to receive LEED Gold certification.

# **Park Operations**

#### **Gold Medal**

The North Carolina state parks system was named national finalist in the 2009, 2011 and 2013 National Gold Medal Award for Excellence in Parks and Recreation. The National Gold Medal Award, which is administered by the American Academy for Park and Recreation Administration in partnership with the National Recreation and Parks Association (NRPA), is the most prestigious award a park and recreation organization can receive and recognizes service excellence.

The Gold Medal Award honors communities and states throughout the United States that demonstrate excellence in long-range planning, resource management, and agency recognition. Each agency is judged on its ability to address the needs of those it serves through the collective energies of citizens, staff and elected officials.

Judges for the American Academy for Park and Recreation Administration considered criteria including the quality of long-range planning, the response to population and economic trends, the extent of public support, the quality of natural resource protection and the types of services to special population groups.

NRPA is an organization dedicated to educating professionals and the public on the essential nature of parks and recreation. Through learning opportunities, research and communications initiatives, it strives to generate public support to advance the development of best practices and resources that help make parks and recreation indispensable elements of American communities.

#### Fall Color Season Launched In North Carolina State Parks

Under a new initiative, travelers can keep track of peak color as it makes its way across the state through park ranger reports available online at www.visitnc.com. Initiated in 2013, regular updates will keep visitors posted on how fall color is progressing through the different types of forests in North Carolina, from the brilliant red of mountain sourwood to the rust-colored cypress in the eastern wetlands. The fall season in North Carolina truly lasts from late September into December. State parks joined a list of sites reporting peak color to the N.C. Division of Tourism, Film and Sports Development, which prominently features a fall foliage travel section on www.visitnc.com.

#### First Day Hikes Offered At Every North Carolina State Park January 1

First Day Hikes are now offered annually in every North Carolina state park and state recreation area on New Year's Day, giving people an opportunity to exercise and celebrate nature. On January 1, 2012, the first program was offered, with 1,392 hikers in North Carolina joining rangers and volunteers to walk a combined 4,573 miles along trails in the state parks and state recreation areas.

#### **Concessions Growth**

Recently, North Carolina state parks has seen a steady increase in revenues from gift shop sales. Prior to 2010, only a handful of parks offered merchandise available for the public to purchase, such as Mount Mitchell, Hanging Rock and Carolina Beach. In recent years, visitor centers at Cliffs of the Neuse, Raven Rock and Gorges State Parks have all been built to include designated retail areas. In addition, state parks merchandise can be purchased through the website at <a href="https://www.ncparkstore.com">www.ncparkstore.com</a>.

A new visitor center under construction at Lake Norman State Park will feature a designated area for retail space. With a new focus on providing goods and merchandise to improve the customer experience and expand revenue opportunities, the division has made a conscious effort to convert available space from visitor center lobbies into small retail areas. Examples can be found at Kerr Lake, Dismal Swamp, Merchant's Millpond, Medoc Mountain, Goose Creek, Haw River, Stone Mountain, New River (2 sites), Elk Knob, South Mountains and Jones Lake.

Table 1.3 State Parks System Yearly Revenues from Retail

Fiscal Year	2009/2010	2010/2011	2011/2012	2012/2013	2013/2014
Purchase for	468,482	591,172	665,040	706,811	785,167
Resale Revenues					

Sales have been brisk and comments from the public have been favorable. The division emphasizes selling items that are educational, geared toward the souvenir seeker, camping necessities and that provide a memorable experience to our visitors.







**Gorges State Park** 

# **Operating Contracts**

Several expiring sublease agreements were rewritten and put out to bid. The goal was to provide the best possible return on the use of state property to the taxpayers of North Carolina. With these RFP's, DPR solicited bids which resulted in an increase in the minimum gross annual revenue to be paid to the department for all revenues, sales and services.

For the marina proposals at Kerr Lake (two marinas), Falls Lake and Jordan Lake, the minimum bid allowed was 8 percent. Bidders could propose more than the minimum and some did. This increase alone has helped to raise the revenues from operating contracts. Revenue generated at the Crosswinds Marina at Jordan Lake under the new contract increased six-fold from \$32,070 in Fiscal Year 2011-2012 to \$183,559 in Fiscal Year 2012-2013.

The Central Reservation System contract was extended in 2014. The extension called for additional new computer units at several parks as well as additional units at some parks that were already operating in the system. The division expects an increase in revenues from this contract as it provides more opportunities for the public to reserve our facilities.

Another long-term contract is with Kitty Hawk Kites at Jockey's Ridge State Park to provide paragliding operations on the sand dunes at the park. The current contract was signed in 2011 and will expire in 2016. The division was able to negotiate a graduating scale for gross revenues and 8% for other concession sales.

The Chimney Rock, LLC concession contract saw a dip in revenues from Fiscal Year 2012-2013 to Fiscal Year 2013-2014 due to a rock slide from heavy rains that closed one of the main trails in the park and damaged the entrance road up to the Chimney. These closures contributed to a decrease in visitors and sales at the park. However, during full operation, the contract represents an important revenue source for the division.

DPR has also added new kayak/canoe concession agreements at Carolina Beach State Park and Hammocks Beach State Park. A power boat rental concession is also being negotiated at the Carolina Beach Marina.

#### **Volunteers**

**Table 1.4 Yearly Number of Volunteer Hours** 

Fiscal Year	2009/2010	2010/2011	2011/2012	2012/2013	2013/2014
Volunteer Hours	56,765	63,283	65,096	53,894	69,851

The average value of volunteer time was estimated at \$22.55/hr in 2013 by the *Independent Sector*, a nationally known provider that studies charitable impacts. Volunteers contributed about 69,851 hours in 2013/2014 to state parks. That equates to a value of \$1,575,140 in volunteer hours. Volunteers serve North Carolina state parks in a number of functions including oyster shell bagging, constructing picnic tables, working special events, tree planting, trail work and repairing bridges. Some familiar organizations are behind our volunteers such as AmeriCorps, Big Sweep, Boy/Girl Scouts, Eagle Scouts, Friends of the MST, the military, local universities, colleges and school systems. Each volunteer receives a hand-written thank you note and those that volunteer significant hours are awarded DPR gifts.

# **Natural and Cultural Resource Protection**

The Division of Parks and Recreation is responsible for the protection of the natural and cultural resources within the state parks system. The division's Natural Resources Program provides field staff, planning staff and construction staff with technical expertise on issues such as resource stewardship, scientific research, environmental review and compliance, and landscape planning.

This responsibility pervades all of the division's activities, from field operations and interpretive programming to the planning and construction of park facilities. The protection of these resources is mandated by the North Carolina Constitution and the State Parks Act, and is directed by the division's Natural Resource Management Policy.

#### **Environmental Compliance**

- The Natural Resources Program reviewed over 40 state park projects funded through the Parks and Recreation Trust Fund. Projects included new and existing trail work, visitor center construction, maintenance dredging, swim beach development, and campground construction.
- Guidelines were developed for stream crossings and the use of culverts.
- A review of the construction environmental compliance process was initiated between the Engineering and Natural Resources programs to increase understanding of the environmental compliance process and to improve communications.
- A Geographic Information System (GIS) dataset was created to facilitate environmental compliance and

park planning. The GIS dataset contains overlays for rare species, natural heritage areas, registered natural areas and park facilities (roads, park buildings, trails, etc.).

#### **Regional Conservation Planning**

• DPR has been involved in large-scale water quality studies at Jordan Lake, Merchants Millpond, Lake Waccamaw, Eno River, Kerr Lake and New River. Planning at the watershed level with other landowners and regulatory agencies helps to protect water quality in park lakes, rivers, and streams.

### Stewardship

- Guidelines were updated for nuisance animals and fire management in 2013.
- The prescribed fire program has grown rapidly over the last few years. Since its inception in the 1970s only around 500 acres per year were burned each year. In response, DPR created a position of ecological burn coordinator and obtained a federal grant to establish a roving seasonal fire crew. Annual burn acreage has been significantly higher since the initiation of this crew. Fire has been initiated or expanded at 21 parks and natural areas (Figure 1.12).
- South Mountains State Park has been identified as a demonstration site for the Southern Appalachian
  Fire Learning Network in cooperation with The Nature Conservancy, Wildlife Resources Commission, the
  National Park Service, and the U.S. Forest Service.

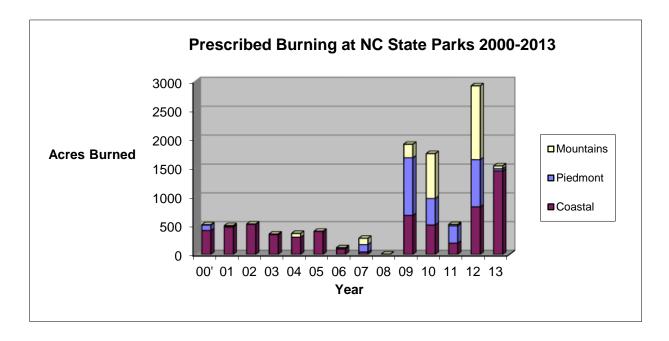


Figure 1.2 Prescribed Fire at North Carolina State Parks 2000-2013

A fire management database was developed that allows the division to track all prescribed fires, upload

plans, prescriptions, and maps, and to track fire training of division personnel.

- The division established a Fire Management Team (DFMT) to serve as the main fire policy development and review group. The DFMT also approves burn bosses for the division and reviews fire-related incidents.
- Terrestrial exotic plant control plans for high priority projects were initiated at the following parks: Lake
  James State Park, Pilot Mountain State Park, Raven Rock State Park, Lake Norman State Park, New River
  State Park, Mitchell Mill State Natural Area, Stone Mountain State Park, Hammocks Beach State Park,
  Eno River State Park, Jordan Lake State Recreation Area and Lower Haw State Natural Area.
- Aquatic weed control has been continuing at a number of parks throughout the system. Most of the
  projects have been assisted with funding from the Division of Water Resources' Aquatic Weed Council.
  The biggest project is for hydrilla control in Lake Waccamaw where hydrilla was discovered on 600 acres
  surrounding the boat ramp. Control efforts are expected to take 7-10 years. In addition, the division will
  begin treatment of hydrilla at Eno River State park.
- Following development of nuisance animal guidelines in 1999 and revisions in 2013, several management plans have been developed including:
  - o a plan to address raccoons raiding sea turtle nests at Hammocks Beach State Park,
  - o a feral hog management plan at South Mountains State Park
  - o a red fox management plan for Fort Fisher State Recreation Area (resulting in recovery of nesting shore birds and sea turtles)
  - o a black bear management plan for Mount Mitchell State Park and
  - o a draft feral hog management plan for Gorges State Park.
- A number of restoration projects were initiated throughout the system including:
  - Raven Rock State Park. Pine plantation removal and hardwood forest restoration at Raven Rock State Park.
  - Morrow Mountain State Park. Deer relocation program in cooperation with the Eastern Band of the Cherokee and the Wildlife Resources Commission;
  - Stone Mountain State Park: Stream restoration on Big Sandy Creek;
  - New River State Park: stream restoration at NC 221 and Wagoner Road Access areas;
  - Dismal Swamp State Park. Hydrologic restoration including the construction of several structures to maintain water levels;
  - Haw River State Park. Restoration of a small dam adjacent to the Summit Center has reduced erosion and impacts to the Haw River; and
  - o Lake Waccamaw State Park. Longleaf pine forest restoration.
- North Carolina state parks and AmeriCorps worked in partnership to improve longleaf pine forest and prescribed fire AmeriCorps volunteers planted wiregrass and longleaf pine, controlled exotic species and helped on prescribed and wild fires in several state parks and natural areas.
- A natural communities GIS data set was created allowing for mapping of different habitat types within parks thus facilitating fire and other types of natural areas management.

#### **Natural Resource Inventory and Monitoring**

- DPR developed a web-based database called the Natural Resources Inventory Database (NRID) to record all species identified throughout the system. The database allows staff and researchers to enter records of individual species and allows park visitors to create species checklists online.
- Since going online in 2003, a total of 173,745 web queries of the NRID and a total of 220,276 records, spanning 11,167 species have been added. In addition, the NRID allows for uploading photos of individual species, natural resource management activities, and natural community types. To date, 20,939 photos have been uploaded.
- The Natural Resources Program conducted intensive park surveys across the system for amphibians, bats, birds, crustaceans, insects, mammals, myriapods, plants, reptiles, spiders, and terrestrial and aquatic mollusks.
- Initial inventories were performed at new state park units including Carvers Creek State Park, Sandy Run Savannas State Natural Area, Beech Creek Bog State Natural Area, Gorges State Park, Chimney Rock State Park, Pineola Bog State Natural Area, Sugar Mountain State Natural Area, Bear Paw State Natural Area, and Yellow Mountain State Natural Area.
- Monitoring projects in state parks expanded to include numerous species. Examples are:
  - o Eastern hellbender and common mudpuppy surveys at New River State Park
  - o Green salamander population monitoring at Gorges and Chimney Rock state parks
  - Wehrle's salamander population monitoring at Bullhead Mountain State Natural Area and Hanging Rock State Park
  - Rafinesque's big-eared bat, southeastern myotis roost tree, and Virginia least trillium monitoring at Merchants Millpond State Park
  - Red-cockaded Woodpecker monitoring at Carvers Creek, Jones Lake, Singletary Lake, and Weymouth Woods State Parks.
  - Golden sedge, Cooley's meadowrue, and Venus flytrap monitoring at Sandy Run Savannas State
     Park
- To date, DPR has organized four 24-hour bio-blitzes, at Weymouth Woods State Natural Area, and Lake Waccamaw, Lake James, and Goose Creek state parks. These events have brought together experts from a variety of fields to help add to the overall natural history of the parks.

#### Research

DPR issued 775 scientific research and collecting permits from 2000 to July 1, 2014. These research
projects covered a wide range of natural science topics, including: intensive bog vegetation surveys;
citizen-science monitoring of Eastern Painted Buntings at coastal parks; fossil excavation at Lake
Waccamaw; and hydrologic restoration work at Lake Phelps.

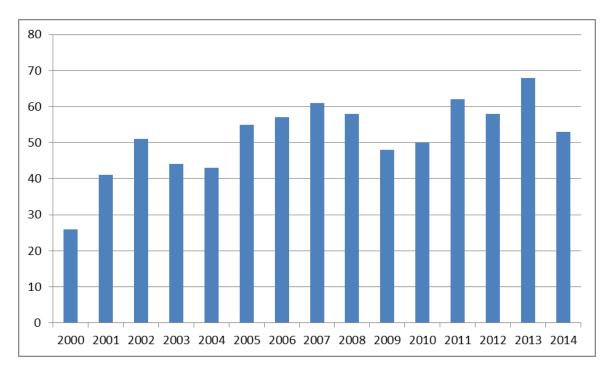


Figure 1.3 Yearly Number of Research Activity Permits Issued

- A multi-year trout stream study was completed at Stone Mountain State Park, in collaboration with North Carolina State University and the N.C. Wildlife Resources Commission.
- A long-term vegetation study on the effects of pine plantation restoration was begun at Sandy Run Savannas State Natural Area.
- A multiple-agency partnership, The Box Turtle Connection, was established to provide long-term data on eastern box turtles across the state.
- Audubon North Carolina, in partnership with NC DPR, has identified Important Birding Areas (IBA) across
  the state.

#### **Natural and Cultural Resources Inventories**

 Park lands were included in 15 county natural heritage surveys. The Natural Heritage Trust Fund provided partial funding for these projects, which verified old records and documented new occurrences of rare species and high quality natural communities.

### **Interpretation and Education**

The Division of Parks and Recreation offers a wide range of educational opportunities and resources. The Interpretation and Education (I&E) program focuses on special events at parks, interpretive programs at parks including guided hikes, canoe excursions and campground programs, professional development for rangers and teachers, visitor center exhibits and museums, science and cultural history field trips for students and special youth programs.

#### **Interpretation and Education Professional Development**

- A DPR staff directive in 1999 mandated that all park rangers, superintendents and I&E specialists achieve
  their North Carolina Environmental Education Certification within three years of employment. The
  certification increases the capacity of division staff to deliver exemplary environmental education
  programs and fosters partnership networks throughout the state.
- New rangers attend a three-day Basic Interpretive Training course where they practice skills needed to offer outstanding educational opportunities and customer service.
- The Advanced Interpretive Training is a series of one-day workshops for park staff and other educators
  to enhance their skills as park educators. Interpretation and Environmental Education for Young
  Children, Astronomy Interpretation, Interpretive Writing for Exhibits and Fire Ecology.

#### **Science Education and Cultural History Field Trips**

- Each park offers field trip experiences that are correlated with the North Carolina Department of Public Instruction's Essential Standards.
- The Junior Ranger activity guide offers outdoor activities for teachers and parents that are correlated with teaching standards.
- Most parks have their own unique curriculum guide, known as the Environmental Education Learning Experience, which has both park-based and classroom-based activities.
- Since 2007, the division has operated a residential program at Haw River State Park. Over 5,000 students
  and adults participate in the Environmental Education Program at Haw River State Park. School groups
  are immersed in outdoor learning while spending up to four nights in the park cabins and lodge rooms.

#### **Exhibits and Museums**

- The state parks system operates 23 exhibit halls and museums across the state.
- Every operated unit of the state park system maintains outdoor interpretive exhibits and informational signs to enhance the experience of visitors.

**Table 1.5 Interpretation & Education Program Participants** 

Year	School Program Participants	All Program Participants	
2013	152,991	414,087	
2012	152,566	385,485	
2011	149,157	334,013	
2010	160,384	309,240	
2009	145,998	267,015	

# **Planning**

New master plans have been completed for Haw River State Park, Chimney Rock State Park and Carvers Creek State Park.

- Authorized as a new unit in 2003, Haw River State Park is the site of the division's only residential
  environmental education facility. This unit encompasses approximately 1,300 acres on the Haw River
  and is on the proposed route for the Mountains-to-Sea State Trail.
- Chimney Rock State Park encompasses over 4,000 acres on the north and south sides of Hickory Nut Gorge and contains operating facilities open to the public.
- Carvers Creek State Park was authorized in 2005. Containing both significant natural and cultural
  resources, the master plan will investigate the development potential for the existing park properties
  and also explore long-range planning within the larger, regional study area.

# **North Carolina Trails Program**

The purpose of the North Carolina Trails Program is to provide for the state's outdoor recreation needs and to promote public access to and enjoyment of the outdoors by establishing a system of scenic and recreational trails throughout the state (North Carolina Trails System Act, General Statutes as GS 113A-83). The term "Trails" is an inclusive term that includes hiking trails, bicycling trails, equestrian trails, paddle trails, off-highway vehicle trails, and multi-use greenways.

The NC Trails Program mission is accomplished by providing the following services:

- Conducting and coordinating trail planning efforts across the state to promote interagency trail planning and to establish sustainable trails and/or sustainable trail segments.
- Providing consultation and technical assistance in trail planning, trail design, contract management, as well as training and education for the development of sustainable trails
- Grants Management: The NC Trails Program administers the Federal Recreational Trails Program (RTP) and has historically administered the Adopt-A-Trail funding which has been suspended due to lack of funding. The NC Trails Program is responsible for coordinating the RTP grants program with the Division of Parks and Recreation, Department of Environment and Natural Resources and the Federal Highway Administration. The federal allocation for RTP is currently averaging \$1.5 million per year.

#### Trail Planning - North Carolina's Mountains-To-Sea State Trail

The Mountains-To-Sea State Trail (MST) was authorized by the General Assembly as a new unit of the state parks system in 2000. It was first envisioned more than three decades ago to cross the state from the Great Smoky Mountains in the west to Jockey's Ridge State Park on the Outer Banks. Since that time, over 608 miles have been designated, with 103 miles designated since 2010.

Mountains-To-Sea State Trail Master Plan: In 2014, the Division of Parks and Recreation contracted with a private trail planning and design firm to develop a web-based master plan for the MST. The overall goal is to advance the planning, construction and management of the MST by partners and future partners. Other goals include, but are not limited to: consolidation of previous planning efforts; definition and prioritization of subsection plans and partners; development of statewide standards and guidelines; establishment of best management practices for the planning, construction, management and promotion of the MST; and the engagement of agencies, non-profit organizations and volunteers in this planning process. This effort is expected to continue into late 2015.

In 2014, the Division of Parks and Recreation contracted with a private trail planning and design firm to develop a MST Subsection Master Plan between Stone Mountain State Park and Pilot Mountain State Park. This plan will further define the most feasible route for the MST through this area of the state. The plan will also help to focus partner efforts on the planning, acquisition, development and maintenance of their segments of the MST.

#### **Consultation and Technical Assistance**

NC Trails Program staff provide professional consulting and technical assistance in the areas of sustainable trail planning, sustainable trail design, and contract management. Upon request, staff also provide training and education to agencies and volunteers.

The NC Trails Program provides professional trail design, and contract management services to State Parks. Professional design services traditionally account for approximately 30 percent of a standard trail contract. With staff providing these services, parks are able to convert that savings into the building of more trail.

Local Communities and Non Profit Organizations Assisted: The NC Trails Program staff supports local communities, non-profit organizations and regional councils in planning, promoting and designing sustainable trails. Recent examples include:

- Assisting with the Lake James Loop Trail Master Plan in Burke County
- Advising the Conservation Fund on a system of equestrian trails in Hoke County
- Consulting with a local nonprofit organization in Halifax County on the development of a walking trail to support their Healthy Eating/Active Living initiative

In 2014, the State Trails program partnered with Recreation Resources Services to present the 2014 North Carolina Trails Workshop. This year, the theme was Connecting Communities. Sessions highlights during the workshop included: How to Leverage Government Resources to Support Low Infrastructure Economic Development; Connecting Communities Through Multiuse Trails and Trail Networks; and Preserving a Sense of Place Through Community Involvement. Over 100 participants attended the inaugural NC Trails Workshop.

#### **Grants Management**

The NC Trails Program administers the Federal Recreational Trails Grant Program (RTP). The RTP in North Carolina is enabled by the Federal legislation, Moving Ahead for Progress in the 21<sup>st</sup> Century Act (MAP-21) which reauthorized the RTP Program for fiscal years 2013 and 2014. RTP funding comes from the Federal Highways

Administration (FHWA) through the N.C. Division of Transportation and is administered by the NC Trails Program within the N.C. Division of Parks and Recreation. Since 1993, RTP funding in North Carolina has been used to provide recreational opportunities for hikers, equestrians, bicyclists, paddlers, and off-highway vehicle (OHV) users.

Between 1999 and 2014 our state received approximately \$37,553,809 in requests for funding. From those requests, the state has awarded \$23,127,723 to sustainable RTP trail projects statewide. These RTP funds, in combination with in-kind services and matching funds, total \$49,716,189 that have been applied to trail and greenway projects for the citizens of North Carolina.

In 2013, the state awarded 33 RTP grant awards totaling \$4.3 million and leveraged \$2.8 million in matching funds to provide economic development and recreational resources to 28 North Carolina counties. In 2014, the NC Trails Program received 32 applications requesting \$2.5 million in funding for the \$1.5 available. Funding for this important Federal Recreational Trails Program has not been authorized beyond 2014.

The NC Trails Program also administered the State's Adopt-A-Trail Grant Program (AAT), a grant program authorized in 1987 to provide funding to agencies and organizations to plan, develop, build and manage trails. This funding was instrumental in boosting low infrastructure economic development at the local level. This funding was also an asset in leveraging funding for larger grants. Total funding for the AAT program was \$108,000 annually with grants being awarded through 2012. Funding for the AAT grant program was suspended in 2013 due to state budget shortfalls.

# **Improving Customer Service, Communications and Outreach**

Working to ensure a high quality, enjoyable, and safe outdoor experience for the state parks system's 15.6 million annual visitors is a top priority for the N.C. Division of Parks and Recreation. From 2009 through 2014, the division initiated a variety of outreach and customer service efforts to improve visitor experience and agency efficiency and effectiveness.

#### **Centralized Reservation System**

In 2009, the State of North Carolina established a contract for the provision and support of a reservation system, fulfillment and call center. It included all of the related hardware, software, and telecommunications equipment needed in order to make available a complete, fully functioning "turnkey" system that includes Internet, call-in, mail-in and park walk-in reservation components. The CRS reservation contract is with Active Network and continues through 2017.

Overnight visitors to the state park system are now able to register for campsites online via the Internet or by calling in to a call center operator. Customers can also reserve picnic shelters and other facilities as part of the new system. Prior to implementation, the reservation system was the most commonly requested service from visitors. The service represents one of the most significant advances in terms of visitor service in the history of the state parks system.

This system includes a central reservation call center as well as the online reservation component. In addition, the state parks system can accept credit card payments at most locations and uses available system components for integration with a point of sale system to further increase and enhance its revenue collecting process. The state parks system launched the full-service Internet- and call center-based reservations system in July 2009 for its nearly 3,000 campsites as well as picnic shelters, cabins, community buildings and other facilities. Visitors can reserve campsites at most state parks for a single night or more, and campsites and facilities can usually be reserved as quickly as 48 hours beforehand.

Advance reservations are not required for a campsite or picnic shelter at a state park if the facility is available, and at many parks, some campsites will be set aside for walk-in registration. Reservations for most facilities can be made up to 11 months ahead. A \$3 surcharge per night's stay or per reservation supports the system. The state of North Carolina did not make any out-of-pocket expenditures for system development.

The state-of-the-art system helps the state parks and its rangers manage ever-growing visitation and provide valuable insight into visitor preferences and demographics. Data collected and available through the system show the average length of camping stay in North Carolina state parks is 2.76 days. Demographic information, visitor-use patterns and other critical information gathered through the system provide the agency with vital facts and figures that enhance planning and operations.

This system has increased the state parks system's exposure and led to increased visitation and revenues, which increases the opportunity to reach more citizens with the message of environmental stewardship. Visitor contact information obtained through the system provides the state park system the ability to market facilities and services which was not available prior to launching the central reservation system. Visitors also now have the peace of mind to know, unlike before, that a campsite is available and reserved for their use upon arrival. Under previous practices, campsites and facilities were only available on a first-come, first-served basis at most parks.

#### **North Carolina State Parks Mobile Application**

The free Pocket Ranger mobile application for North Carolina's state parks, developed for smartphones by ParksByNature Network, has been ranked among the top 100 free navigation applications by Apple's iTunes.

The mobile application, or app, was introduced in May 2011 by the N.C. Division of Parks and Recreation in partnership with Friends of State Parks and ParksByNature Network. The app was among the first such comprehensive mobile applications for state parks systems created by New York-based ParksByNature.

The downloadable application for iPhone and Android smartphones allows visitors to plan trips and explore state parks with details readily at hand about park locations, trails, facilities, reservations, events and special news alerts. It also allows GPS-aided, state-of-the-art navigation of state parks, storage of detailed topographic maps and enhanced interactive features for social media. An "alert" feature supplies GPS coordinates to designated contacts in case of emergencies.

#### **Website and Publications**

The Division of Parks and Recreation is now printing the park brochures in color. Due to new pricing structures at Corrections Enterprises, the color brochures are less expensive than the previous black-and-white versions were. The color photos are more representative of what the parks offer, and the addition of color to the park maps has been an improvement in their usability.

As companion pieces to the brochures, most parks are now using (or are scheduled to use) **black-and-white map pads**. These pieces are very inexpensive, and suitable for day-to-day visitor use for locating restrooms, trailheads, etc.

To make park information more accessible on the website, and to help defray the cost of printing brochures, we created a letter-sized PDF of each park map and a "factsheet" with basic contact information and park overview. Visitors can print these ahead of their visit, on either color or black-and-white printers.

When searching for parks or events on the website, visitors were confronted with an unformatted list of results. DPR created **formatted search result pages** that include the park's contact information, a thumbnail photo of the park, and a map indicating the park's location.





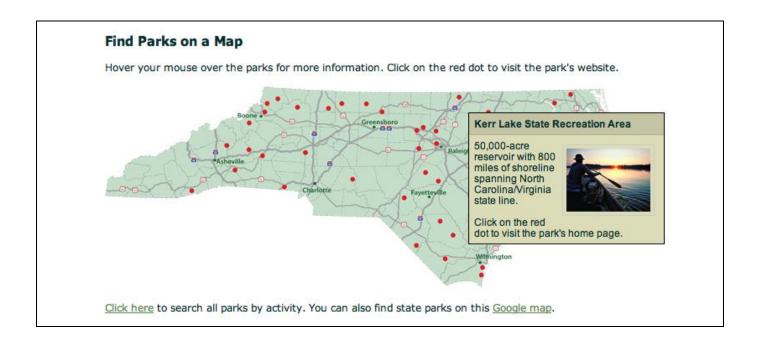
Lumber River State Park (910) 628-4564

2819 Princess Ann Road, Orrum, NC 28369

State natural and scenic 115-mile black-water river, 81 miles also designated national wild and scenic waters. Picnic shelter, five canoe-in campsites, nine tent campsites, one group backpack campsite. River fishing, boat access, picnicking, short hiking trail, interpretive programs.

Region: Central

The web site also includes a Find Park on a Map feature with a clickable map of the state. When visitors hover over a park, they see a description of the park and a link to the park's home page.



The website also now includes embedded Google maps, so visitors can customized their driving directions to the park. Photo slideshows were created for each park, featuring scenic, activities, visitors, and volunteering have been added. Google Analytics were installed on the website to better track visitor usage. In addition, the division conducted a user survey to gather input from our website visitors.

During this time span, the division deployed a Facebook page, a blog and became a regular user of Twitter, Instagram and QR codes.

# On-Line Retail Store

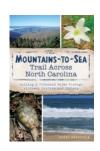
**Table 1.6 Web Store Yearly Revenue** 

Fiscal Year	2008/2009	2009/2010	2010/2011	2011/2012	2012/2013	2013/2014
Revenue	0.00	622	1,792	1,873	2,271	3,696

The DPR web store (www.ncparkstore.com) has grown considerably in recent years offering over 100 new products in 8 different categories. Advertising has helped fuel sales and interest. The web store is currently advertised on the parks web page via a link to the store and excerpts rotating on the front page. Active Network, our reservation system provider, also advertises the web store on the North Carolina home page. Facebook posts of new products have helped get the word out within a day of the product appearing in the

store. Also a plus is the ability of our warehouse to send products out via mail within 24 hours of purchase in most cases.













# CHAPTER TWO STATE OF THE SYSTEM

# **System Units**

As of December 31, 2014, the North Carolina State Parks System consists of 74 units, 41 of which are operated for the visiting public with on-site staff and regular gate hours. The remaining units are managed in one of the following ways: as part of an operated park, as a satellite unit, or through cooperative and partnership agreements. For example, Lake Phelps State Lake is managed as part of Pettigrew State Park. Run Hill State Natural Area is a satellite of Jockeys Ridge State Park. Hemlock Bluffs State Natural Area is leased to the Town of Cary in a cooperative agreement, and the Mountains-to-Sea State Trail is an example of a protection partnership with other agencies and organizations.

Table 2.1 Size of the State Parks System

Size of the North Carolina State Parks System (as of December 31, 2014)					
Unit Type	Units	Size (Acres)	Length (Miles)		
State Parks	35	156,097			
State Recreation Areas	4	13,256			
State Natural Areas	20	24,194			
State Lakes	7	29,135			
State Rivers	4	0	146		
State Trails	4	1,965	806		
Total	74	224,647	952		
Land Area		195,512			
Water Area (State Lakes)		29,135			
Easements		890			
Total		225,537			

North Carolina State Parks System

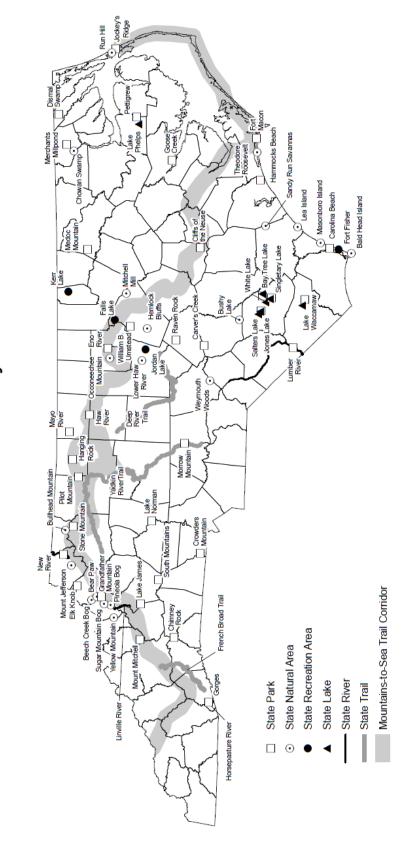


Table 2.2 Total State Parks System Units with Acreages (as of December 31, 2014)

State Parks (land area only)	Size (acres)	State Recreation Areas (land area only)	Size (acres)
Bay Tree	609	Falls Lake	5,035
Carolina Beach	420	Fort Fisher	287
Carvers Creek	4,332	Jordan Lake	4,558
Chimney Rock	6,270	Kerr Lake	3,376
Cliffs Of The Neuse	892	Total 4	13,256
Crowders Mountain	5,126		,
Dismal Swamp	14,432	State Natural Areas (land area only)	Size (acres)
Elk Knob	3,672	Baldhead Island	1,260
Eno River	4,197	Bear Paw	381
Fort Macon	424	Beech Creek Bog	120
Goose Creek	1,672	Bullhead Mountain	365
Gorges	7,709	Bushy Lake	6,343
Grandfather Mountain	2,644	Chowan Swamp	6,066
Hammocks Beach	1,155	Hemlock Bluffs	97
Hanging Rock	7,869	Lea Island	25
Haw River	1,379	Lower Haw River	1,025
Jockeys Ridge	426	Masonboro Island	106
Jones Lake	1,669	Mitchell Mill	93
Lake James	3,515	Mount Jefferson	975
Lake Norman	1,923	Occoneechee Mountain	190
Lake Waccamaw	2,201	Pineola Bog	91
Lumber River	11,259	Run Hill	123
Mayo River	2,187	Sandy Run Savannas	2,538
Medoc Mountain	3,893	Sugar Mountain Bog	102
Merchants Millpond	3,447	Theodore Roosevelt	265
Morrow Mountain	4,496	Weymouth Woods	915
Mount Mitchell	1,996	Yellow Mountain	3,111
New River	2,878	Total 20	24,194
Pettigrew	5,830	10001 20	24,154
Pilot Mountain	3,663	State Lakes (water area only)	Size (acres)
Raven Rock	4,694	Bay Tree	1,418
Singletary Lake	649	Jones	224
South Mountains	18,627	Phelps	16,600
Stone Mountain	14,351	Waccamaw	8,938
William B. Umstead	5,592	Salters	315
Total 35	156,097	Singletary	572
33	130,037	White	1,068
State Rivers	Size (acres)	Total 7	29,135
Horsepasture	0	Total 7	25,133
Linville	0	Length (miles)	
Lumber	0	4.5	
New	0	13	
Total 4	0	102	
10tai 4		26.5	
State Trails	Size (acres)	146	
Deep River	1,274		
French Broad River	0	Length (miles)	
Mountains To Sea	691	0	
Yadkin River	0	67	
Total 4	1,965	608	
		130	

# **Types Of Units**

The State Parks Act of 1987 lists six types of units included in the North Carolina State Parks System: State Parks, State Natural Areas, State Recreation Areas, State Trails, State Rivers, and State Lakes.

- State Park North Carolina's first State Park was established at Mount Mitchell in 1916 to protect the summit of the highest mountain in the eastern U.S. There are currently 35 State Parks in the system. Generally, State Parks are expected to possess both significant natural resource values and significant recreational values. State Parks are expected to accommodate the development of facilities, but may vary in the extent of development depending upon what can be provided without damage to the scenic or natural features. Facilities are planned and constructed to keep disturbance of natural resources to a minimum and to leave a large portion of each park undisturbed and free from improvements and structures, except for trails.
- State Natural Area State Natural Areas were established as a separate type of system unit in 1963 with the adoption of separate principles for management. The first State Natural Area was created that same year. There are currently 20 State Natural Areas. The purpose of State Natural Areas is focused on preserving and protecting areas of scientific, aesthetic, or ecological value. Facilities are limited to those needed for interpretation, protection, and minimum maintenance. Generally, recreational and public use facilities such as camping, swimming, picnicking and the like are not provided in State Natural Areas.
- State Recreation Area State Recreation Areas are sites where the primary purpose is outdoor recreation, rather than preservation. More intensive development of facilities is provided than in State Parks. Protection and enjoyment of the natural resources are still important, and the sites are expected to contain scenic and attractive natural features. Development is planned and constructed to keep a "reasonable amount" of each area undisturbed and free from improvements and structures. The first State Recreation Area was added to the system in 1971, and principles to guide the development and operation of State Recreation Areas were adopted in 1974. There are currently four State Recreation Areas.
- State Trail The North Carolina Trails System Act was passed in 1973 to help provide for the state's outdoor recreation needs and to promote public access to natural and scenic areas. The act prescribed methods for establishing a statewide system of scenic trails, recreation trails, and connecting or side trails. The Trails System includes "State Trails", which are designated and managed as units of the state parks system, and "designated trails", which are regional connector trails managed by other governmental agencies or organizations. At present there are four State Trails.
- State River The Natural and Scenic Rivers System was created by the 1971 General Assembly to preserve and protect certain free flowing rivers, their water quality and their adjacent lands for the benefit of present and future generations. The Natural and Scenic Rivers Act established criteria and methods for inclusion of components to the system. Components of the Natural and Scenic Rivers System are State Rivers, and are also units of the state parks system. Currently there are four State Rivers.
- State Lake Chapter 165 of the Laws of 1929 specified that "all lakes now belonging to the State having an area of 50 acres or more" should be "administered as provided for other recreational areas now owned by the State." This allowed the then-Department of Conservation and Development to assume management authority for seven Coastal Plain lakes that became units of the state parks system known as State Lakes. Most of these are administratively included as part of an adjoining State Park, but one of the lakes (White Lake) has no public ownership on its shoreline.

# **Visitation**

Total visitor attendance for 2014 was 15.6 million. Visitation fluctuates from year to year based on weather conditions, facility closures, and the state of the economy, but the trend over time is for increasing visitation (Figure 2.2).

Park units with the highest attendance have been the state recreation areas located on reservoirs (Kerr Lake State Recreation Area, Jordan Lake State Recreation Area, and Falls Lake State Recreation Area) as well as coastal parks and recreation areas located in popular vacation destinations (Jockey's Ridge State Park, Fort Macon State Park and Fort Fisher State Recreation Area). These six park units accounted for over 6 million visits (Table 2. 3). William B. Umstead was the most visited State Park in the system.

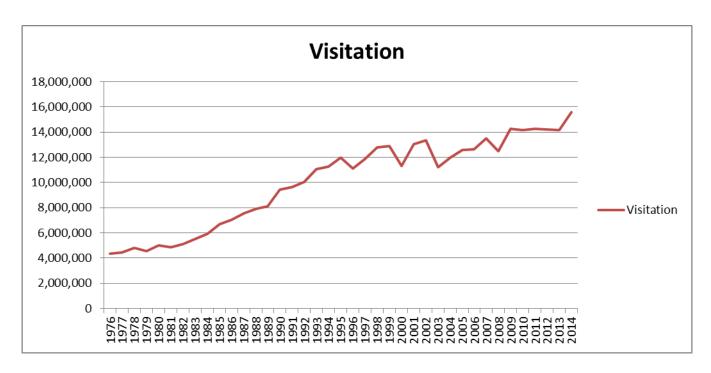


Figure 2.2 State Parks System Visitation 1975-2014

Table 2.3 State Park Visitation by Park Unit 2014

Attendance for 2014			
NC State Park Unit			
Carolina Beach State Park	567,025		
Carvers Creek State Park	74,220		
Chimney Rock State Park	249,548		
Cliffs of the Neuse State Park	177,224		
Crowders Mountain State Park	577,666		
Dismal Swamp State Park	125,026		
Elk Knob State Park	30,060		
Eno River State Park	462,549		
Falls Lake State Recreation Area	1,080,730		
Fort Fisher State Recreation Area	790,334		
Fort Macon State Park	1,190,134		
Goose Creek State Park	255,107		
Gorges State Park	107,254		
Grandfather Mountain State Park	72,926		
Hammocks Beach State Park	178,736		
Haw River State Park	30,510		
Hanging Rock State Park	480,938		
Jones Lake State Park	119,636		
Jordan Lake State Recreation Area	1,273,483		
Jockey's Ridge State Park	1,237,276		
Kerr Lake State Recreation Area	1,099,644		
Lake James State Park	471,566		
Lake Norman State Park	551,081		
Lake Waccamaw State Park	183,977		
Lumber River State Park	53,860		
Mayo River State Park	35,739		
Merchants Millpond State Park	283,270		
Medoc Mountain State Park	109,573		
Mount Jefferson State Natural Area	106,039		
Mount Mitchell State Park	280,966		
Morrow Mountain State Park	457,160		
New River State Park	187,223		
Occoneechee Mountain State Natural Area	68,154		
Pettigrew State Park	72,251		
Pilot Mountain State Park	378,389		
Raven Rock State Park	197,534		
Singletary Lake State Park	15,278		
South Mountains State Park	220,512		
Stone Mountain State Park	380,842		
Weymouth Woods-State Natural Area	57,850		
William B. Umstead State Park	1,293,063		
Systemwide Total	15,584,353		

# **Visitor Facilities**

In July 2014, the state parks system contained more than 1,300 roofed buildings. This figure does not include bridges, walkways, pavement, trails, or other structures.

Table 2.4 Summary of Visitor Facilities in the North Carolina State Parks System

Facility	Total	Facility	Total
Amphitheater	21	Information Station	3
Auditorium	16	Interpretive Building	8
Bathhouse	18	Laboratory	1
Boat Dock	69	Lodge	3
Boat Ramp	41	Meeting Room	14
Boathouse	6	Museum	2
Cabin - Group	117	Museum/Exhibit Hall	22
Cabin - Improved	16	Park Office	19
Campsite - Electric Hookups	511	Picnic Area	63
Campsite - Equestrian	15	Picnic Shelter	121
Campsite - No Hookups	1298	Pier	6
Campsite - Water & Electric	755	Play Area	4
Canoe Launch Point	23	Play Area w/Equipment	26
Canoe Rental Building	2	Pool	2
Classroom	19	Primitive Campsite - Drive To	26
Community Building	8	Primitive Campsite - Hike In	68
Concession	11	Primitive Campsite - Paddle To	36
Dining Hall	7	Primitive Campsite - Walk In	134
Disc Golf Hole	9	Restaurant	3
Disc Golf Tee		Shelter	2
District Office	2	Showerhouse	75
Entrance Station	24	Sun Shelter	5
Environmental Ed. Center	6	Swimming Area - Freshwater	19
Fishing Pier	21	Swimming Area - Ocean or Sound	5
Gazebo	3	Toilet Building	203
Group Campsite - Drive To	59	Toilet Building - Flush	15
Group Campsite - Hike In	6	Toilet Building - Non-Flush	53
Group Campsite - Walk In	20	Visitor Center	25
Historic Building	60	Water Tank	6

# **Future Needs**

Park master plans and general management plans have identified future needs for land acquisition and facility development in each park. Table 2.5 shows new construction and renovation needs and Table 2.6 shows identified land acquisition needs for each park.

Table 2.5 Construction and Repair Needs at Existing Parks (as of December 31, 2014)

Park Name	New Construction	Repair & Renovation	Total Cost
Baytree Lake	\$2,028,698	\$0	\$2,028,698
Carolina Beach	\$1,701,610	\$1,456,083	\$3,157,693
Carvers Creek	\$30,375,730	\$4,778,120	\$35,153,850
Chimney Rock	\$35,333,294	\$1,099,885	\$36,433,179
Cliffs Of The Neuse	\$1,645,308	\$2,245,696	\$3,891,004
Crowder's Mountain	\$1,911,484	\$4,279,198	\$6,190,682
Deep River Trail	\$1,707,787	\$0	\$1,707,787
Dismal Swamp	\$2,686,513	\$1,320,732	\$4,007,245
Eno River	\$10,126,306	\$1,982,108	\$12,108,414
Falls Lake	\$8,746,816	\$5,681,432	\$14,428,248
Fort Fisher	\$606,599	\$0	\$606,599
Fort Macon	\$1,119,664	\$369,320	\$1,488,984
Goose Creek	\$3,732,847	\$528,929	\$4,261,776
Gorges	\$5,625,361	\$0	\$5,625,361
Hammocks Beach	\$2,584,369	\$1,832,809	\$4,417,178
Hanging Rock	\$5,310,105	\$222,753	\$5,532,858
Haw River	\$25,983,975	\$100,304	\$26,084,279
Jockey's Ridge	\$1,083,572	\$1,002,034	\$2,085,606
Jones Lake	\$1,023,226	\$1,389,360	\$2,412,586
Jordan Lake	\$653,951	\$20,544,859	\$21,198,810
Kerr Lake	\$17,062,815	\$16,849,315	\$33,912,130
Lake James	\$20,971,549	\$314,816	\$21,286,365
Lake Norman	\$2,308,823	\$5,681,995	\$7,990,818
Lake Waccamaw	\$7,691,291	\$0	\$7,691,291
Lower Haw River	\$271,309	\$0	\$271,309
Lumber River	\$18,864,640	\$0	\$18,864,640
Medoc Mountain	\$17,250,925	\$0	\$17,250,925
Merchants Mill Pond	\$662,411	\$1,995,684	\$2,658,095
Mitchell's Mill	\$247,853	\$0	\$247,853
Morrow Mountain	\$10,225,255	\$2,453,224	\$12,678,479
Mount Mitchell	\$0	\$4,474,387	\$4,474,387

Mount Jefferson	\$2,560,397	\$0	\$2,560,397
New River	\$3,873,490	\$0	\$3,873,490
Occoneechee Mountain	\$1,592,322	\$0	\$1,592,322
Pettigrew	\$14,435,425	\$553,394	\$14,988,819
Pilot Mountain	\$19,454,183	\$4,061,775	\$23,515,958
Raven Rock	\$3,824,201	\$2,037,111	\$5,861,312
Singletary Lake	\$2,291,484	\$0	\$2,291,484
South Mountain	\$54,516,726	\$0	\$54,516,726
Stone Mountain	\$3,393,121	\$5,827,134	\$9,220,255
Weymouth Woods	\$1,519,807	\$1,096,517	\$2,616,324
William B. Umstead	\$1,010,888	\$24,499,789	\$25,510,677
Total:	\$348,016,130	\$118,678,763	\$466,694,893

**Table 2.6 State Parks System Land Acquisition Needs** 

N	North Carolina State Parks System Land Acquisition Needs									
		(as of Decem	ber 31, 2014)							
	Planned	Current	Critical	Important	Total	Future Needs				
Unit	Acres	Acres	Acres	Acres	Acres	Est. Cost				
Baldhead Island	1,280	1,260	0	20	20	\$200,000				
Bay Tree Lake	2,873	2,027	766	80	846	\$1,200,000				
Bear Paw	822	384	0	438	438	\$1,200,000				
Beech Creek Bog	777	120	176	481	657	\$3,250,000				
Bullhead Mountain	1,235	365	277	593	870	\$3,700,000				
Bushy Lake	7,832	6,343	774	715	1,489	\$2,600,000				
Carolina Beach	563	420	143	0	143	\$5,000,000				
Carvers Creek	8,397	4,332	200	3,865	4,065	\$21,000,000				
Chimney Rock	11,346	6,270	1,246	3,830	5,076	\$19,000,000				
Chowan Swamp	6,066	6,066	0	0	0	\$0				
Cliffs of the Neuse	3,487	892	497	2,098	2,595	\$2,000,000				
Crowders Mountain	5,856	5,126	347	383	730	\$5,900,000				
Deep River	2,319	1,274	74	971	1,045	\$5,000,000				
Dismal Swamp	14,963	14,432	0	531	531	\$500,000				
Elk Knob	11,878	3,672	1,494	6,712	8,206	\$11,000,000				
Eno River	6,400	4,197	1,398	805	2,203	\$19,000,000				
Falls Lake	5,042	5,035	0	7	7	\$300,000				
Fort Fisher	289	287	0	2	2	\$300,000				
Fort Macon	582	424	0	158	158	\$1,000,000				
Goose Creek	2,519	1,672	236	611	847	\$750,000				
Gorges	9,434	7,709	464	1,261	1,725	\$5,000,000				
Grandfather Mountain	3,868	2,644	468	756	1,224	\$3,300,000				
Hammocks Beach	1,563	1,155	289	119	408	\$10,000,000				
Hanging Rock	14,945	7,869	2,769	4,307	7,076	\$9,500,000				

Haw River	7,219	1,379	1,779	4,061	5,840	\$19,000,000
Hemlock Bluffs	101	97	0	4	4	\$800,000
Jockey's Ridge	429	426	0	3	3	\$700,000
Jones Lake	2,273	2,208	0	65	65	\$100,000
Jordan Lake	4,558	4,558	0	0	0	\$0
Kerr Lake	3,537	3,376	0	161	161	\$2,000,000
Lake James	5,642	3,515	135	1,992	2,127	\$4,000,000
Lake Norman	2,029	1,923	31	75	106	\$1,500,000
Lake Waccamaw	15,244	11,138	2,158	1,948	4,106	\$6,000,000
Lea Island	117	25	0	92	92	\$1,000,000
Lumber River	22,076	11,259	2,396	8,421	10,817	\$11,200,000
Lower Haw River	3,487	1,025	150	2,312	2,462	\$7,400,000
Masonboro Island	106	106	0	0	0	\$0
Mayo River	7,337	2,187	0	5,150	5,150	\$7,500,000
Medoc Mountain	6,783	3,893	945	1,945	2,890	\$2,000,000
Merchants Millpond	8,309	3,447	1,613	3,249	4,862	\$3,750,000
Mitchell Mill	149	93	0	56	56	\$450,000
Morrow Mountain	7,169	4,496	1,587	1,086	2,673	\$3,500,000
Mountains-to-Sea	691	691	0	0	0	\$0
Mount Jefferson	2,225	975	461	789	1,250	\$11,000,000
Mount Mitchell	3,237	1,996	575	666	1,241	\$8,000,000
New River	6,851	2,878	772	3,201	3,973	\$19,000,000
Occoneechee Mountain	288	190	0	98	98	\$1,500,000
Pettigrew	27,433	22,430	103	4,900	5,003	\$7,000,000
Pilot Mountain	6,454	3,663	636	2,155	2,791	\$8,000,000
Pineloa Bog	191	91	7	93	100	\$1,500,000
Raven Rock	7,852	4,694	189	2,969	3,158	\$7,000,000
Run Hill	123	123	0	0	0	\$0
Sandy Run Savannas	9,387	2,538	0	6,849	6,849	\$3,000,000
Singletary Lake	1,395	1,221	0	174	174	\$270,000
South Mountains	20,954	18,627	466	1,861	2,327	\$3,400,000
Sugar Mountain Bog	333	102	0	231	231	\$1,300,000
Stone Mountain	18,600	14,351	375	3,874	4,249	\$2,600,000
Theodore Roosevelt	265	265	0	0	0	\$0
Weymouth Woods	1,573	915	232	426	658	\$3,500,000
White Lake	1,068	1,068	0	0	0	\$0
William B. Umstead	5,983	5,592	340	51	391	\$3,000,000
Yellow Mountain	13,017	3,111	7,412	2,494	9,906	\$5,000,000
Total	348,821	224,647	33,980	90,194	124,174	\$286,670,000

# CHAPTER THREE RESOURCE EVALUATION

# **Introduction**

The significant archaeological, geologic, scenic, recreational and biological resources of North Carolina should be represented in a completed state parks system. These resources have been categorized into 108 themes. Continued progress has been made in the last five years to improve the representation of these themes in the state parks system. Seventeen biological themes are better represented than 5 years ago; two of these are now listed as adequately protected. Despite the recent gains several themes continue to be under-represented.

This chapter contains an evaluation of the archaeological, geologic, scenic, and biological resources in the state parks system and identifies themes inadequately protected by the system. Expansion of the state parks system to provide additional protection to these inadequately represented themes is a high priority. The provision of recreational resources will be addressed through the planning process for individual units of the state parks system. This site-specific analysis is needed to mesh the system's mission of preserving unique natural resources and providing public recreation. Public preferences for outdoor recreation activities are presented in Chapter Four.

# **Evaluation**

To fulfill these mandates for the first Systemwide Plan in 1988, five committees were formed to analyze the unique resource categories cited in the Act. Committees were composed of academic and state experts and representatives of relevant citizen groups. They were charged with fulfilling the following objectives:

- 1. Define resource themes within each of the five resource categories;
- 2. Determine the significance of themes within geographic regions;
- 3. Identify representation of themes within state parks system units;
- 4. Evaluate the representation of themes within geographic regions; and
- 5. Rank the amount of protection that park units provide for significant biological, geological, scenic and archeological resources.

Biological, geological, scenic and recreational resources were reevaluated by the Division of Parks and Recreation (DPR) for this plan update. The archaeological resources have not been reevaluated since the original plan because there are no "very high" protection needs. The evaluation of biological and geological resources has been revised in consultation with the Natural Heritage Program and the NC Geological Survey.

**Definition of Resource Themes** - Within each resource category cited in the State Parks Act (archeological, geological, scenic, recreational and biological) are subcategories called resource "themes". The committees identified 108 themes that should be protected in order to preserve representative examples of unique biological, geological, scenic, and archeological resources in a comprehensive state parks system (Table 3.1). Definitions of themes are included in Appendix D.

**Significance of Themes Within Regions** - After identifying resource themes, the committees rated their significance within four natural regions: Tidewater, Coastal Plain, Piedmont, and Mountain. The committees determined the level of significance of each theme in each region and rated the level of significance as "high", "moderate", "low", or "none" based on the quality, quantity and diversity of the theme in the region. For themes that did not exist in a region, no rating is assigned. The significance of themes within regions is found in the columns labeled "Significance" in Tables 3.2 through 3.5.

Representation of Themes in Parks within Geographic Regions - The next step in the process is to determine whether resource themes are adequately represented in the state parks system within each region. The adequacy of the protection within the regions is rated as either "adequate", "moderate", "little", or "none". Themes that do not exist in a region were not labeled. Judgments were based upon the quality, quantity and diversity of the theme being protected. Committee results and staff updates from the addition of more than 19,000 acres at 26 park units are listed in columns labeled "Representation" in Tables 3.2 through 3.5.

**Duplications and Deficiencies in the State Parks System** - Deficiencies in the North Carolina state parks system exist where there is inadequate representation of unique archeological, geological, scenic, recreational, and biological themes (Tables 3.2 through 3.5). An indication of deficiencies and duplications can be derived by examining the representation and significance of themes defined by the resource committees.

Role of the One NC Naturally Conservation Planning Tool- The division has committed to participating in the Department's Conservation Planning Tool (CPT). The CPT provides a framework for land conservation and sustainable growth across the state by identifying the resources required for a healthy environment. The primary assessment used by the division is the Biodiversity and Wildlife Habitat Assessment. This assessment contains summaries of much of the information already used by the division as well as additional information. Although the CPT does not contain enough detail in its assessments to fully evaluate a potential new park unit, it is very useful for estimating the scope of a unit and potential connections to other conservation priorities.

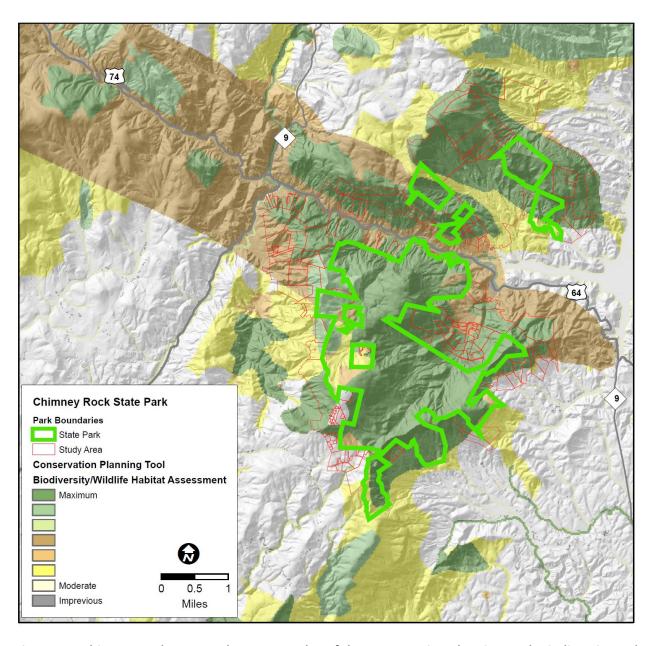


Figure 3.1 Chimney Rock State Park area – overlay of the Conservation Planning Tool: Biodiversity and Wildlife Habitat Assessment

Table 3.1 Themes Identified by Resource Evaluation Committees

Biological	Geological	Archeological	Scenic
Spruce-Fir Forests	Barrier Islands/Shoreline	PREHISTORIC	Scenic Vistas
Grass and Heath Balds	Estuaries	Village	Reservoirs/Lakes
Northern Hardwood Forests	Continental Shelf	Campsite/Activity Area	Waterfalls
Mountain Cove Forests	Relict Coastal Features	Shell Midden	Rivers
Piedmont and Coastal Plain	Carolina Bays	Burial/Cemetery	Whitewater Streams
Mesic Forests	Fluvial Depositional Features	Quarry/Soapstone	Forests
Piedmont and Mountain Dry	Peatlands/Interstream	Quarry/Other	Meadows and
Coniferous Woodlands	Wetlands	Shelter/Cave	Grasslands
Montane Oak Forests	Natural Lakes and Ponds	Rock Art	Swamps
Piedmont and Coastal Plain	Caves, Sinks, and Springs	Trail/Path	Pocosins
Oak Forests	Dissected Uplands	Underwater	Marshes
High Elevation Rock Outcrops	Inselbergs (Monadnocks)	Other	Gorges
Low Elevation Cliffs/Rock Outcrops	Cliffs		Rock Outcrops
Coastal Plain Marl Outcrops	Exfoliation Outcrops	HISTORIC	Islands
Granitic Flatrocks	Gorges, Rapids, Waterfalls	Recreation	Caves and Cliffs
Mafic Glades and Barrens	Mass Wasting Features	Public Works	Bays and Estuaries
Maritime Grasslands	Faults, Joints, and Related	Public/Civic/Religious	Seashores
Maritime Upland Forests	Features	Commercial	Scenic Highways
Dry Longleaf	Folds and Related Features	Urban/Domestic	
Pine Communities	Intrusions	Rural/Domestic	
Blackwater Coastal Plain	Volcanic Features	Cemetery	
Floodplains	Metamorphic Features	Industrial	
Brownwater Coastal Plain	Sedimentary Features	Mills	
Floodplains	Fossils	Transportation	
Piedmont and Mountain	Unusual Rock Types	Military	
Floodplains		Underwater	
Riverine Aquatic Communities		Other	
Mountain Bogs and Fens			
Upland Seepages and		STANDING STRUCTURE	
Spray Cliffs		Recreation	
Piedmont Upland Pools		Public Works	
and Depressions		Public/Civic/Religious	
Coastal Plain Nonalluvial		Commercial	
Mineral Wetlands		Urban/Domestic	
Peatland Pocosins		Rural/Domestic	
Streamhead Pocosins		Cemetery	
Wet Pine Savannas		Industrial	
Coastal Plain Depression		Mills	
Communities		Transportation	
Natural Lake Communities		Military	
Maritime Wetland Forests		Other	
Freshwater Tidal Wetlands			
Estuarine Communities			

# **Archeological Theme Representation**

Five archeological themes have high protection needs: prehistoric village (Coastal Plain, Piedmont), prehistoric burial/cemetery (all regions), standing structure mills (Mountain), historic industrial (Piedmont, Mountain) and historic commercial (Piedmont, Mountain). The most duplicated themes include prehistoric campsite/activity areas, historic rural-domestic, and standing structure rural-domestic.

Archeological themes as defined by the archeological committee are relatively well covered by the state parks system. This is not to say they are well preserved or interpreted, but simply that most archeological themes exist, or are likely to exist, within the state parks system. Expansion needs to protect significant archeological themes are identified by bold capital letters in Table 3.2. The committee recommended that the state should take action to preserve inadequately protected themes before establishing new units to represent themes that are already well represented and protected within the state parks system.

Archeological surveys have been conducted in portions of 19 units of the state parks system as part of the capital development construction process. Prior to ground-disturbing activities (e.g., road construction, capital improvements), archeological surveys are often required to identify and evaluate any cultural resources that may be adversely affected. Such a piecemeal approach to identifying archeological values within state parks has resulted in an uncoordinated and inadequate inventory. The archeological committee also made the following recommendations:

- 1. The state parks system should consider conducting cultural resource surveys and evaluations inhouse. Doing so would considerably speed up the planning process, facilitate compliance with regulatory requirements, and aid in the development of interpretive programming. It is recommended that DPR employ two professional archaeologists (master's degree or better) and one laboratory technician to manage the cultural resource program. In addition, an architectural historian should be hired under contract to conduct a comprehensive inventory and evaluation of all standing structures in the parks.
- 2. The committee recommended that DPR continue training staff in the overall principles and procedures of cultural resource management. Proposed program topics include:
  - a. current state cultural resource protection laws (e.g., the Archeological Resources Protection Act, the Unmarked Human Burial and Human Skeletal Remains Act);
  - b. the general prehistory and history of North Carolina;
  - c. identification and treatment of cultural materials;
  - d. proper approaches to recording and interpreting cultural resources in general; and
  - e. cultural resource preservation and management procedures.
- 3. DPR should employ one or more trained individuals to compile and synthesize the extant cultural resource information available within DPR and the Division of Archives and History.

Table 3.2 Statewide Significance of Archeological Themes and their Representation in the State Parks System

		REGIONS								
	TI	DEWATER	COAST	AL PLAIN	PIEC	DMONT	M	DUNTAIN		
THEMES	Significance	Representation	Significance	Representation	Significance	Representation	Significance	Representation		
PREHISTORIC ARCHEOLOGICAL: Village	High	Adequate	HIGH	MODERATE	HIGH	MODERATE	High	Adequate		
Campsite/Activity Area	High	Adequate	High	Adequate	High	Adequate	High	Adequate		
Shell Midden	High	Adequate								
Burial/Cemetery	HIGH	MODERATE	HIGH	MODERATE	HIGH	MODERATE	HIGH	MODERATE		
Quarry—Soapstone			None	Little	None	Little	High	Moderate		
Quarry—Other			None	Little	High	Adequate	High	Moderate		
Shelter/Cave			High	Adequate	High	Adequate	High	Adequate		
Rock Art			None	Little	High	Moderate	High	Moderate		
Trail/Path	None	Little	None	Little	High	Adequate	High	Moderate		
Underwater	High	Adequate	High	Adequate	High	Adequate	High	Moderate		
Other	None	Little	None	Little	None	Little	None	Little		
HISTORIC ARCHEOLOGICAL: Recreation	High	Adequate	High	Adequate	High	Adequate	High	Adequate		
Public Works	High	Adequate	High	Adequate	High	Adequate	High	Moderate		
Public/Civic/Religious	High	Adequate	High	Adequate	High	Adequate	High	Adequate		
Commercial	High	Adequate	High	Adequate	High	Moderate	High	Moderate		
Urban—Domestic	None	Little	High	Adequate	None	Little	None	Little		
Rural—Domestic	High	Adequate	High	Adequate	High	Adequate	High	Adequate		
Cemetery	High	Adequate	High	Adequate	High	Adequate	High	Adequate		
Industrial	High	Adequate	High	Adequate	HIGH	LITTLE	HIGH	LITTLE		
Mills	High	Adequate	High	Adequate	High	Adequate	None	Little		

Notes: High expansion needs are shown in **BOLD CAPITAL** letters. Where no entry has been made, themes are not applicable.

Table 3.2 Statewide Significance of Archeological Themes and Their Representation in the State Parks System (continued)

				RE	EGIONS			
	TIDE	WATER	CO	COASTAL		PIEDMONT		DUNTAIN
THEMES	Significance	Representation	Significance	Representation	Significance	Representation	Significance	Representation
Transportation	High	Adequate	High	Adequate	High	Moderate	High	Moderate
Military	High	Adequate	High	Adequate				
Underwater	High	Adequate	High	Adequate	High	Moderate		
Other			None	Little				
STANDING STRUCTURES: Recreation			High	Adequate	High	Adequate	High	Adequate
Public Works			High	Adequate	High	Adequate	High	Moderate
Public/Civic/Religious			High	Adequate			High	Adequate
Commercial			High	Adequate			High	Moderate
Urban—Domestic			High	Adequate				
Rural—Domestic			High	Adequate	High	Adequate	High	Adequate
Cemetery			High	Adequate	High	Moderate	High	Moderate
Industrial			High	Adequate			High	Moderate
Mills	High	Adequate	High	Adequate	High	Adequate	HIGH	MODERATE
Transportation			High	Adequate	High	Moderate	High	Moderate
Military	High	Adequate	High	Adequate				

Notes: High expansion needs are shown in **BOLD CAPITAL** letters. Where no entry has been made, themes are not applicable.

# **Geological Theme Representation**

Twelve geological themes were rated as having very high expansion needs in at least one region. Four of these twelve themes had very high expansion needs in more than one region, making a total of 17 theme-region combinations rated as having very high expansion needs. These 17 very high expansion needs are highlighted in Table 3.3 by bold type and shading. Very high expansion needs are those that have high significance in a region and have little or no representation in the state parks system.

Five geological themes and theme-region combinations have high expansion needs (Table 3.3). High expansion needs are these that have high significance in a region and have moderate but not adequate representation in the state parks system. They are indicated in Table 3.3 by bold type, but have no shading.

Fossils, caves/sinks/springs, and unusual rock types have little coverage across all regions. On the other hand, barrier islands, Carolina bays, exfoliation outcrops, intrusions, and metamorphic features have adequate representation. The Piedmont offers the most protection to geological themes within the state parks system, whereas the Tidewater offers the least. Additional surveys of geological resources in the System should be conducted in partnership with the North Carolina Geological Survey.

Table 3.3 Statewide Significance of Geological Themes and Their Representation in the State Parks System

				REG	IONS			
	TIDE	WATER	COASTA	AL PLAIN	PIED	MONT	MOUNTAIN	
THEMES	Significance	Representation	Significance	Representation	Significance	Representation	Significance	Representation
Barrier Islands and Shorelines	High	Adequate	None		None		None	
Estuaries	High	Adequate	Little	None	None		None	
Continental Shelf	HIGH	NONE	None		None		None	
Relict Coastal Features	HIGH	LITTLE	HIGH	NONE	None		None	
Carolina Bays	High	Adequate	High	Adequate	None		None	
Fluvial Depositional Features	High	Adequate	High	Adequate	High	Adequate	HIGH	LITTLE
Peatlands and Interstream Wetlands	High	Adequate	High	Adequate	None		None	
Natural Lakes and Ponds	High	Adequate	High	Adequate	None		None	
Caves, Sinks, and Springs	High	Adequate	HIGH	NONE	HIGH	LITTLE	HIGH	MODERATE
Dissected Uplands	Little	None	High	Adequate	High	Adequate	High	Adequate
Inselbergs (Monadnocks)	None		Little	None	High	Adequate	High	Adequate
Cliffs	HIGH	NONE	High	Adequate	High	Adequate	High	Adequate
Exfoliation Outcrops	None		None		High	Adequate	High	Adequate
Gorges, Rapids, and Waterfalls	None		HIGH	LITTLE	High	Adequate	High	Adequate
Mass Wasting Features	None		HIGH	NONE	High	Adequate	HIGH	MODERATE
Faults, Joints, and Related Features	None		Little	None	High	Adequate	HIGH	MODERATE
Folds and Related Features	None		Little	None	High	Adequate	HIGH	LITTLE
Intrusions	None		Little	Adequate	High	Adequate	High	Adequate
Volcanic Features	None		Little	None	High	Adequate	HIGH	NONE
Metamorphic Features	None		High	Adequate	High	Adequate	High	Adequate
Sedimentary Features	High	Adequate	High	Adequate	HIGH	MODERATE	HIGH	NONE
Fossils	HIGH	NONE	HIGH	LITTLE	HIGH	NONE	Little	None
Unusual Rock Types	нідн	NONE	High	Adequate	HIGH	MODERATE	HIGH	LITTLE

Notes: Very high expansion needs are shaded. High expansion needs are shown in **BOLD CAPITAL** letters. Where no entry has been made, themes are not applicable.

### **Scenic Theme Representation**

Eight scenic themes are rated as having very high expansion needs (Table 3.4: very high expansion needs are shaded; high expansion needs are shown in bold capital letters). These include: meadows/grasslands (Tidewater, Coastal Plain, Piedmont), waterfalls (Piedmont), rivers (Tidewater), islands (Tidewater, Piedmont), rock outcrops (Coastal Plain), caves/cliffs (Coastal Plain, Piedmont, Mountain) and bays/estuaries (Tidewater).

Scenic themes had some representation in the state parks system, although significant scenic highways had no representation within the Tidewater and Coastal Plain regions. Across all regions, approximately half scenic themes are represented in state parks. Additional units in the Piedmont region are proposed to serve a rapidly expanding population. The Mountain region will preserve significant resources.

Table 3.4 Statewide Significance of Scenic Themes and Their Representation in the State Parks System

		REGIONS										
	TIDE	TIDEWATER		COASTAL PLAIN		MONT	МО	UNTAIN				
THEMES	Significance	Representation	Significance	Representation	Significance	Representation	Significance	Representation				
Scenic Vistas	HIGH	MODERATE	HIGH	MODERATE	HIGH	MODERATE	HIGH	MODERATE				
Reservoirs/Lakes	HIGH	MODERATE	High	Adequate	High	Adequate	HIGH	MODERATE				
Waterfalls					HIGH	LITTLE	High	Adequate				
Rivers	HIGH	LITTLE	HIGH	MODERATE	HIGH	MODERATE	HIGH	MODERATE				
White Water Streams					HIGH	MODERATE	HIGH	MODERATE				
Forests	HIGH	MODERATE	High	Adequate	High	Adequate	High	Adequate				
Meadows/Grasslands	HIGH	LITTLE	HIGH	LITTLE	HIGH	LITTLE	HIGH	MODERATE				
Swamps	High	Adequate	High	Adequate								
Pocosins	HIGH	MODERATE	HIGH	MODERATE								
Marshes	HIGH	MODERATE	HIGH	MODERATE								
Gorges							HIGH	MODERATE				
Rock Outcrops			HIGH	LITTLE	HIGH	MODERATE	HIGH	MODERATE				
Islands	HIGH	MODERATE			HIGH	LITTLE						
Caves/Cliffs	HIGH	NONE	HIGH	LITTLE	HIGH	LITTLE	High	Adequate				
Scenic Highways	HIGH	NONE	HIGH	NONE	HIGH	LITTLE	HIGH	LITTLE				
Bays/Estuaries	HIGH	LITTLE										
Seashores	нідн	MODERATE										

Notes: Very high expansion needs are shaded. High Expansion needs are shown in BOLD CAPITAL letters. No entry means theme is not applicable.

# **Biological Theme Representation**

Over 116 natural community types have been identified and described in North Carolina (Schafale and Weakley, 1990). These have been grouped into 32 biological themes based on similarities in environment and vegetation. Each of the themes is fully described in the Natural Heritage Program Biennial Protection Plan (Division of Parks and Recreation, 1993).

As land within North Carolina is altered for agriculture, forestry, industry, and residential development, one of the consequences is a reduction of natural diversity in the landscape. Undisturbed natural communities in North Carolina are very diverse, varying in geology, soil type, topography, moisture, flora, and fauna. It is the purpose of the state parks system to protect representative examples of the state's natural diversity for the benefit and enjoyment of all the citizens. At present, the state parks system includes representative examples of many of the state's biological themes. However, many themes are not adequately represented. Expansion of the state parks system for protection of biological diversity should focus on the themes which are not yet adequately represented.

Nine biological themes are rated as having very high expansion needs (Table 3.5; very high expansion needs are shaded; high expansion needs are shown in bold capital letters). These include: grass and heath balds (Mountain), northern hardwood forests (Mountain), coastal plain marl outcrops (Tidewater), mafic glades and barrens (Piedmont and Mountain), brownwater coastal plain floodplains (Coastal Plain), riverine aquatic communities (Tidewater and Piedmont), mountain bogs and fens (Mountain), piedmont upland pools and depressions (Piedmont), coastal plain nonalluvial mineral wetlands (Tidewater), peatland pocosins (Tidewater), streamhead pocosins (Coastal Plain), wet pine savannas (Tidewater and Coastal Plain), and coastal plain depression communities (Tidewater and Coastal Plain).

 Table 3.5 Statewide Significance of Biological Themes and Their Representation in the State Parks System

	Regions									
Themes	Tide	Tidewater		Coastal		mont	Mountain			
	Significance	Representation	Significance	Representation	Significance	Representation	Significance	Representation		
Spruce-Fir Forests							HIGH	MODERATE		
Grass and Heath Balds							HIGH	LITTLE		
Northern Hardwood Forests							HIGH	MODERATE		
Mountain Cove Forests							HIGH	Adequate		
Piedmont and Coastal Plain Mesic Forests	HIGH	MODERATE	High	Adequate	High	Adequate	Little	None		
Piedmont and Mtn Dry Coniferous Woodlands					Moderate	Moderate	HIGH	Adequate		
Montane Oak Forests					Moderate	Adequate	HIGH	Adequate		
Piedmont and Coastal Plain Oak Forests	MODERATE	LITTLE	High	Adequate	HIGH	Adequate	Little	Little		
High Elevation Rock Outcrops							HIGH	MODERATE		
Low Elevation Cliffs and Rock Outcrops	HIGH	NONE	Moderate	Adequate	HIGH	MODERATE	HIGH	MODERATE		
Coastal Plain Marl Outcrops	HIGH	NONE	MODERATE	NONE						
Granitic Flatrocks					HIGH	MODERATE				
Mafic Glades and Barrens					HIGH	NONE	HIGH	NONE		
Maritime Grasslands	High	Adequate								
Maritime Upland Forests	HIGH	MODERATE								
Dry Longleaf Pine Communities	HIGH	MODERATE	HIGH	MODERATE	MODERATE	NONE				
Blackwater Coastal Plain Floodplains	HIGH	MODERATE	HIGH	MODERATE	Little	None				
Brownwater Coastal Plain Floodplains	Little	None	HIGH	LITTLE						
Piedmont and Mountain Floodplains			Moderate	Adequate	HIGH	MODERATE	HIGH	MODERATE		
Riverine Aquatic Communities	HIGH	LITTLE	HIGH	MODERATE	HIGH	MODERATE	HIGH	MODERATE		

	Regions									
Themes	Tide	water	C	oastal	Pied	mont	Mountain			
	Significance	Representation	Significance	Representation	Significance	Representation	Significance	Representation		
Mountain Bogs and Fens							HIGH	MODERATE		
Upland Seepages and Spray Cliffs					MODERATE	MODERATE	HIGH	MODERATE		
Piedmont Upland Pools and Depressions					HIGH	MODERATE	Little	None		
Coastal Plain Nonalluvial Mineral Wetlands	HIGH	MODERATE	MODERATE	NONE						
Peatland Pocosins	HIGH	MODERATE	High	Adequate						
Streamhead Pocosins	Little	Little	HIGH	MODERATE						
Wet Pine Savannas	HIGH	MODERATE	HIGH	MODERATE	MODERATE	NONE				
Coastal Plain Depression Communities	HIGH	MODERATE	HIGH	LITTLE						
Natural Lake Communities	HIGH	MODERATE	High	Adequate						
Maritime Wetland Forests	HIGH	MODERATE								
Freshwater Tidal Wetlands	HIGH	MODERATE								
Estuarine Communities	High	Adequate								

# CHAPTER 4 TRENDS AFFECTING OUTDOOR RECREATION IN THE STATE PARKS SYSTEM

North Carolina's population and landscape are always changing. The state parks system is part of the natural landscape and offers places where people love to recreate. As the state's population grows and people's preferences for enjoying the state parks change, it's important to consider the impacts that these changes will have on the state parks system. The mission of the state parks system remains a constant. How best to accomplish the mission in an ongoing challenge. This chapter highlights important trends affecting state parks and provides recommendations for how to address the impacts.

### **Population Growth**

From 1990-2000, the state's population grew 21.3 percent and totaled over 8 million people. The growth rate reflects the significant in-migration of people who are relocating to North Carolina. In fact, two-thirds of the growth rate is because of people moving to the state.

This trend has continued in the 21<sup>st</sup> Century, with predicted growth rates of 18 percent and 15 percent for the first two decades, respectively. By 2020, the state's population will have grown to nearly 11 million, up from 6.6 million in 1990 (Figure 4-1). This increase of nearly 4.5 million people represents a total increase of 65 percent in 30 years. By contrast, it took 80 years, 1910 to 1990, to add 4.5 million people to the state's population.

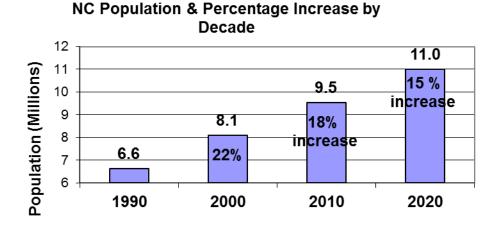


Figure 4.1 North Carolina's Population Increase 1990-2020

Higher population growth is occurring in the large metropolitan areas across the state. One third of the growth in North Carolina's population this decade occurred in the two largest counties, Mecklenburg and Wake counties. The growth in the top ten counties, nearly 750,000 people, has accounted for about two-thirds of the population increase in the state from 2010-2020. In contrast, significant portions of the state have declining

population. Thirty-three of the state's 100 counties are projected to have fewer residents or have had no population growth.

**Table 4.1 Top Ten Counties by Population Increase 2010-2020** 

County	2010 Population	2020 Population	Population	Percent Increase	
County	2010 i opulation	2020 i opulation	Increase	Terecine intereuse	
Mecklenburg	919,625	1,141,488	221,863	24.1	
Wake	900,993	1,103,895	202,902	22.5	
Guilford	488,406	544,860	56,454	11.6	
Durham	269,974	322,471	52,497	19.4	
Onslow	177,772	217,875	40,103	22.6	
New Hanover	202,681	241,063	38,382	18.9	
Union	201,292	239,137	37,845	18.8	
Buncombe	238,319	270,335	32,016	13.4	
Brunswick	107,431	137,258	29,827	27.8	
Cabarrus	178,014	207,359	29,345	16.5	
Totals	3,684,507	4,425,741	741,234	20%	

North Carolina's population has been and will continue to be among the fastest growing in the United States. In the year 2010, North Carolina ranked 10<sup>th</sup> in total population in the nation. By 2020, North Carolina is projected by the US Census Bureau to be the ninth most populous state in the nation, passing Michigan. Much of the population growth in the state is because of in-migration, people who relocate to North Carolina from another state.

To get a sense of the scale of the population growth resulting from in-migration, consider the following estimate from the US Census Bureau. During the current decade, North Carolina is projected to grow by more people than the population growth in New York, Illinois, Pennsylvania, Ohio and Michigan combined. All of these states have a larger population than North Carolina.

Another source of rapid population growth is the increase in North Carolina's Hispanic population. The Pew Research Center found that the state's Hispanic population grew by 120 percent from 2000-2010, the sixth

highest increase in the nation. The growth was more than 400,000 people. Many Hispanics, an estimated seven percent of the state's population or 650,000 people, speak Spanish at home.

Table 4.2 Most Populous States in the US: 2010 and 2020

Most Populous States - 2000 and 2020						
2000		2020				
Rank	State	Rank	State			
1	California	1	California			
2	Texas	2	Texas			
3	New York	3	Florida			
4	Florida	4	New York			
5	Illinois	5	Illinois			
6	Pennsylvania	6	Pennsylvania			
7	Ohio	7	Ohio			
8	Michigan	8	Georgia			
9	Georgia	9	North Carolina			
10	North Carolina	10	Michigan			

Another measure of the changing landscape is population density, people per square mile, which is increasing across the state. In 2010, North Carolina had approximately 195 people per square mile. During the next 20 years, the population density for the state is expected to increase to 255 per square mile, which is an increase of over 30 percent (Table 4.2).

Much of the growth will be concentrated in the Piedmont Crescent; from the Charlotte metropolitan area through the Triad area of Forsyth and Guildford counties and through the Triangle area containing Orange, Durham, Wake and Johnston counties. The maps on the following page show that the increased growth radiates from these counties as people move to adjacent areas. As population densities increase, land that was previously natural, rural or agricultural is converted to commercial or residential uses.

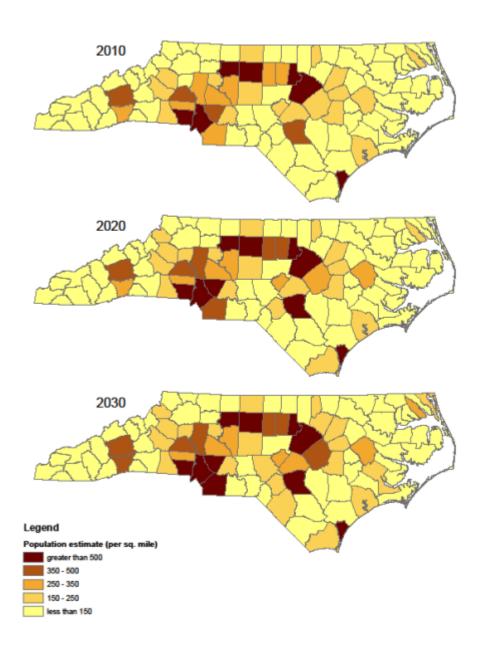


Figure 4.2 Population Densities by County 2010 - 2030

# **Longer, Healthier Lives**

The North Carolina population is aging as Baby Boomers born between 1946 and 1964 continue to retire, birth rates have slowed and average life expectancy increased. The median age in the state rose from 26.5 in 1970 to 36.2 in 2000. The median age is projected to continue to rise.

People are living longer (Table 4.4). Improved living conditions, medical discoveries, advances in healthcare and knowledge about the effects of lifestyle have all contributed to the longer lives. Questions about how long life spans can be extended through discoveries of biological research are being debated, but the trend of increased life expectancy is projected to continue. Lifestyle choices, including participating in recreation and exercise, can affect an individual's life span.

Table 4.4 Life Expectancy at Birth, 1900-2010

	1900	1920	1940	1960	1980	2000	2005	2010
Average	49.2	56.4	63.6	69.9	73.9	75.4	77.8	78.7
Men	47.9	49.9	57.7	65.5	70.1	71.8	75.2	76.2
Women	50.7	57.4	65.9	73.2	77.6	78.8	80.4	81.0

Source: National Vital Statistics System

While the elderly participate in outdoor recreation less frequently than younger persons, they participate more frequently than in past years. An increasing interest in physical fitness and improved health has led to more participation. When higher participation rates are coupled with large increases in the over-65 age group, the elderly will demand services to a much greater degree than they do now.

Increased demand can therefore be expected for activities that have high participation by older Americans. These include walking, sightseeing, attending family gatherings, visiting a beach or waterside, picnicking, visiting a historic site or nature center, bird watching and attending sporting events. Older Americans also participate in a wide variety of other outdoor recreation activities including wildlife viewing, attending concerts, nature study, fishing, swimming, motor boating, biking and golf.

In contrast, the N.C. State Center for Health Statistics found that more than two thirds of adults are overweight or obese as well as an estimated 30% of children ages 10-17. The chronic conditions related to obesity, such as high blood pressure, diabetes and heart disease could have much greater public health impacts in the future as overweight children get older and increase the number of overweight adults. All of these illnesses shorten lifespans and limit a person's ability to participate in outdoor recreation.

# **Preferences For Outdoor Recreation Activities**

In 2014, the North Carolina Division of Parks and Recreation conducted a public survey to evaluate demand for, participation in, and perceptions of outdoor recreation. The survey was conducted online using Survey Monkey and was distributed via multiple channels. In total, the study yielded over 17,000 responses.

Questions from the survey broadly address areas such as outdoor recreation participation, satisfaction with statewide outdoor recreation opportunities, motivation for participation, and barriers to participation.

In order to understand trends and popularity among outdoor recreation activities, respondents were asked to identify the activities they or household members participate in or have participated in over the past five years. The most popular activity was visiting a beach or lake, with 69 percent participating. Walking for pleasure or exercise, and visiting parks or historic sites are activities for 61 and 60 percent of respondents respectively. Over half of all respondents participate in hiking on trails (59 percent) and freshwater fishing (58 percent) (Figure 4.3). Other activities that have at least half of respondents participating are viewing scenery, fishing from a boat, nature viewing and swimming.

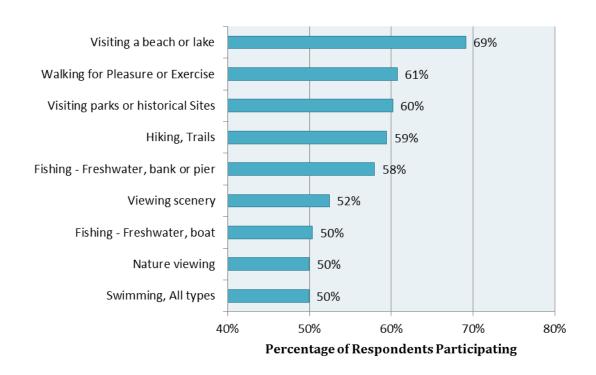


Figure 4.3 Most popular outdoor recreation activities

Respondents were asked to describe their motivations for participating in outdoor recreation activities. The most popular answers were, being outdoors (93 %), followed by having fun (87 %) and relaxing (78 %). Respondents also wanted to be closer to nature and spend time with family and friends. (Figure 4.4)

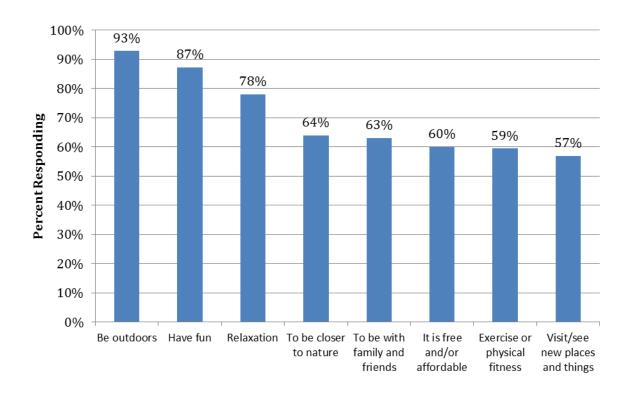


Figure 4.4 Why North Carolinians Recreate Outdoors

Respondents were also asked how many times they visited local, state, and federal parks. For state parks, most people indicated that they visited between three and five times in the past year (28 percent). The next most popular answers were one to two visits (22 percent) and more than eight visits (22 percent). (Figure 4.5) The reasons that state parks enjoy wide popularity are reflected in the things survey respondents seek in participating in outdoor recreation. State parks provide many if not all of these experiences – opportunities to be outdoors, be closer to nature, enjoy time with family and friends. Many state parks also provide opportunities for exercise and fun in a setting that is free or affordable.

In many cases, another factor in the number of times a person visits a state park is proximity. Earlier surveys of state park visitors have shown that many people who choose to visit are within 30 miles. Parks that are closer to home are more affordable to visit in terms of time and effort as well as money.

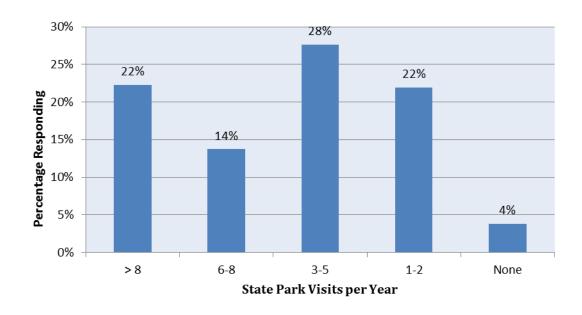


Figure 4.5 Average Visits to State Parks Per Year

North Carolina residents are generally satisfied with the parks available to them. That's important because over 90 percent of those surveyed responded that local and state parks are extremely important to them. The highest levels of satisfaction are with efforts to provide outdoor recreation and environmental education. About 80 percent of respondents were either satisfied or somewhat satisfied with these efforts. In contrast, about 70 percent of respondents are satisfied or somewhat satisfied with efforts to acquire and manage public land. (Figure 4.6)

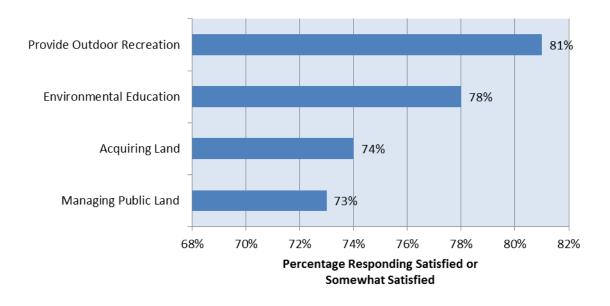


Figure 4.6 Satisfaction with Park Management

# **Priorities for Park Management**

What are public priorities for parks in North Carolina? Survey respondents were asked to identify their priorities for several management objectives. The most popular top priority was "operate existing parks" (31 percent of respondents), followed closely by "acquire new parks and open space" (24 percent). Other priorities are to develop new trails, the top priority of 13 percent of respondents, and to develop new facilities at existing parks (11 percent). (Figure 4.7)

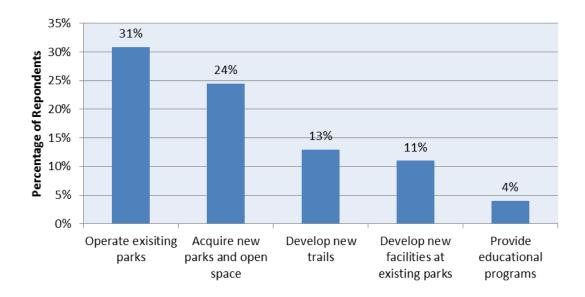


Figure 4.7 Public Priorities for park management

#### **Recreational Resource Needs in State Parks**

During 2008, the Division of Parks and Recreation conducted a survey to gain feedback on what types of recreational facilities are desirable in state parks as well as a review and rank of statements regarding the state park system. In addition to press releases, Friends of State Parks groups, outdoor recreation groups, land conservation partners, and various park supporters were encouraged to take the survey online. Some local and statewide park user groups circulated the web link of the online survey to their members. By the time the survey was closed to responses, 3,927 individuals interested in North Carolina state parks completed a survey.

Table 4.5 What types of facilities would you use in a state park?

Potential Park Facilities	I would use	I might use	I would not use
Hiking trail	79.50%	16.20%	4.30%
Nature trail	74.10%	21.30%	4.60%
Picnic table with grill	68.40%	26.10%	5.50%
Multi-use trail	61.20%	30.90%	7.90%
Observation decks	61.00%	31.00%	8.00%
Paddle trails and river access areas	55.50%	33.10%	11.50%
Picnic shelter	53.90%	37.00%	9.10%
Beach	53.40%	34.00%	12.70%
Museum/educational exhibit	50.70%	37.50%	11.80%
Swimming area	48.40%	38.00%	13.60%
Tent/trailer campsite without hookups	47.90%	31.70%	20.40%
Cabin with kitchen, heat, and restroom	45.00%	36.90%	18.00%
Mountain bike trail	39.30%	25.40%	35.20%
Back-country primitive campsite	38.90%	32.30%	28.80%
Simple cabin (enclosed living space)	37.20%	43.30%	19.50%
Tent/trailer campsite with hookups	35.20%	30.70%	34.20%
Open play area	32.40%	35.80%	31.80%
Fishing pier	30.80%	35.80%	33.40%
Rock climbing area	30.70%	33.00%	36.30%
Group campsites	30.30%	44.70%	25.00%
Boat ramp/dock	30.20%	33.30%	36.50%
Playground	29.80%	28.40%	41.80%
RV/trailer campsite with hookups	22.70%	17.80%	59.50%
Equestrian trail	20.90%	13.90%	65.10%
Marina	17.60%	30.20%	52.20%

The survey found the five *most popular* facilities in the park system to be: 1. Hiking Trails (79.5% would use), 2. Nature Trails (74.1% would use), 3. Picnic Table with Grill (68.4% would use), 4. Multi-Use Trail (61.2% would use), and 5. Observation Decks (61.0% would use). (Table 4.5)

The five *least popular* facilities were: 1. Equestrian Trails (65.1% would not use), 2. Recreation Vehicles (RV)/Trailer campsite with hook-ups (59.5% would not use), 3. Marina (52.2% would not use), 4. Playground (41.8% would not use), and 5. Boat Ramp/Dock (36.5% would not use).

Table 4.6 To what degree do you agree or disagree with the statements below?

Statements	Strongly Agree	Agree	Disagree	Strongly Disagree
It is important to protect North Carolina's unique natural resources, even if it means limiting public access to certain areas.	48.3%	41.5%	8.7%	1.5%
It is important to protect natural and scenic resources by acquiring land even if these areas may not be accessible to the public until planning, design and funding are in place to be developed as park units.	59.5%	34.2%	5.2%	1.1%
NC Parks should add new parks to provide additional recreational opportunities.	60.7%	34.5%	4.4%	0.4%
NC Parks should provide more recreational facilities and activities at its existing parks.	40.4%	43.2%	15.0%	1.4%
Completing land acquisition and construction plans at existing parks should take priority over adding new parks, recreation areas, or natural areas.	19.3%	38.2%	36.6%	5.9%
It is important to locate new parks equitably across the state based on geography and population.	18.9%	45.2%	31.4%	4.4%
It is important to locate new parks based on the need to protect natural and recreational resources regardless of their proximity to centers of population.	49.5%	40.4%	9.2%	1.0%
I would be willing to pay higher fees for improved and expanded state park services and programs.	28.8%	49.7%	18.1%	3.3%
Fees should be kept at a minimum to serve greatest number of people possible.	27.6%	50.9%	18.5%	3.0%
Information on the NC Parks website is sufficient for my needs.	11.4%	65.7%	20.4%	2.5%
The brochures and maps for the state parks I visit are sufficient for my needs.	14.3%	68.4%	16.0%	1.4%
NC Parks should focus on providing more environmental education opportunities for visitors at parks.	27.6%	55.0%	24.9%	1.7%

Statements	Strongly Agree	Agree	Disagree	Strongly Disagree
NC Parks should increase its environmental education programs for public schools curriculum.	27.6%	52.9%	17.4%	2.1%
NC Parks should focus on providing educational opportunities in parks for children and families with children.	22.4%	56.2%	19.3%	2.1%
NC Parks should focus on improving maintenance and cleanliness of its parks.	20.4%	57.4%	21.4%	0.9%
NC Parks should focus on improving natural resource protection.	38.5%	51.2%	9.8%	0.5%
Access at state parks for persons with disabilities needs improvement.	10.4%	45.3%	41.1%	3.2%

The greatest percentage of survey respondents *strongly agreed* with the following statements (Table 4.6):

- NC Parks should add new parks to provide additional recreational opportunities. (60.7% strongly agreed)
- It is important to protect natural and scenic resources by acquiring land even if these areas may not be
  accessible to the public until planning, design and funding are in place to be developed as park units.
  (59.5% strongly agreed)
- It is important to locate new parks based on the need to protect natural and recreational resources regardless of their proximity to centers of population. (49.5% strongly agreed)
- It is important to protect North Carolina's unique natural resources, even if it means limiting public access to certain areas. (48.3% strongly agreed)

The greatest percentage of survey respondents agreed with the following statements:

- The brochures and maps for the state parks I visit are sufficient for my needs. (68.4% agreed)
- Information on the NC Parks website is sufficient for my needs. (65.7% agreed)
- NC Parks should focus on improving maintenance and cleanliness of its parks. (57.4% agreed)
- NC Parks should increase its environmental education opportunities in parks for children and families with children. (56.2% agreed)
- NC Parks should focus on providing more environmental education opportunities for visitors at parks. (55.0% agreed)

- NC Parks should increase its environmental education programs for public schools curriculum. (52.9% agreed)
- NC Parks should focus on improving natural resource protection. (51.2% agreed)
- Fees should be kept at a minimum to serve greatest number of people possible. (50.9% agreed)
- I would be willing to pay higher fees for improved and expanded state park services and programs. (49.7% agreed)
- NC Parks should provide more recreational facilities and activities at its existing parks. (43.2% agreed)

#### The following statements had *a high level of disagreement*:

- Completing land acquisition and construction plans at existing parks should take priority over adding new parks, recreation areas, or natural areas. (38.2% agreed and 36.6% disagreed)
- It is important to locate new parks equitably across the state based on geography and population. (45.2% agreed and 31.4% disagreed)
- Access at state parks for persons with disabilities needs improvement. (45.3% agreed and 41.1% disagreed)

#### The survey respondents ranked the top five priority statements as follows:

- First Priority: It is important to protect North Carolina's unique natural resources, even if it means limiting public access to certain areas. (25.5% selected this as their first priority)
- Second Priority: It is important to protect natural and scenic resources by acquiring land even if these areas may not be accessible to the public until planning, design and funding are in place to be developed as park units. (19.4% selected this as their second priority)
- Third and Fourth Priority: It is important to locate new parks based on the need to protect natural and recreational resources regardless of their proximity to centers of population. (16.7% selected this as their third priority and 10.8% selected this as their fourth priority)
- Fifth Priority: NC Parks should focus on improving natural resource protection. (11.3% selected this as their fifth priority)

#### **Implications Of Demographic And Socioeconomic Trends**

- Increasing population and concomitant development pressures underscore the importance of conserving naturally significant land and water resources.
- The most popular state parks are also the parks that are most impacted by increasing visitation and population growth. Providing additional recreational opportunities in appropriate places and environmental education will help accommodate more people and enhance an appreciation for the

state's natural heritage.

- An increasing cosmopolitan and educated proportion of the North Carolina population participates in outdoor recreation more frequently, usually on weekends and close to home. This pattern creates a greater demand for higher quality outdoor recreation near population centers.
- As two-wage-earner families and urban lifestyles predominate, these families will have less time to plan
  outings. Better information systems about state parks, such as the centralized reservation system and
  the state park webpages, will help increase public awareness of recreational opportunities as well as
  planning a visit more convenient.
- Most types of trail use, such as hiking, bicycling, and nature study are among the most popular activities
  in states parks. Trail construction and maintenance should continue to be a priority.
- Use of mountain bicycles has increased dramatically in the state. Bike trails in state parks are quite
  popular. It will continue to be important to working with bicycle groups to find appropriate locations
  and cooperate to minimize impacts.
- The growing elderly population has more leisure time but participates in active leisure activities less
  frequently than do younger age groups. The elderly are more concerned with the safety, quality and
  accessibility of park facilities. The ADA stipulates that both facilities and programs should be accessible
  to all visitors. Newly constructed park facilities will be accessible and older facilities renovated to meet
  ADA standards. Making parks accessible to all citizens will continue to be important.
- State parks attract tourist spending. Additional efforts to market state parks would be beneficial across
  the state and particularly in counties experiencing a decline in population and a related downturn in the
  local economy.
- Increasing the availability of Spanish for park signs and other information within state parks would assist
  visitors from the growing Hispanic population in North Carolina. Warning signs, directions, and fee
  collection would seem to be a logical starting point.
- Nationwide, local, county, state, and federal governments are working to reduce childhood obesity and
  encourage children and families to be more physically active through recreation planning and
  infrastructure programs. The provision of outdoor open spaces and recreational space is a key to
  addressing these issues.
- The 2013 Outdoor Recreation Participation Report found 90 percent of adults who regularly recreate
  outdoors were introduced to outdoor activities between the ages of five and 18. This makes today's
  youth participation critical to encouraging similar patterns for future generations.
- Visiting beaches, lakes, parks, as well as walking for pleasure are the most popular outdoor recreational
  activities in the state. It is important that residents have easy access to information about state park
  sites that offer these opportunities.

# CHAPTER FIVE STRATEGIC DIRECTIONS

Although expressed in different words over the years, the mission and long term goals of the North Carolina State Parks System have been adhered to since the first state park was established at Mount Mitchell in 1916. The strategies used to achieve these goals have adapted to changing circumstances, trends, and opportunities.

#### Mission

The mission of the Division of Parks and Recreation is:

Conservation: To protect North Carolina's natural diversity through careful selection and

stewardship of state parks system lands;

Recreation: To provide and promote outdoor recreation opportunities in the state parks

system and throughout the state;

Education: To encourage appreciation of North Carolina's natural and cultural heritage

through diverse educational opportunities;

for all citizens of and visitors to the State of North Carolina.

#### **Long Term Goals**

- Preserve and protect high quality, representative examples of the biological, geological, archaeological, scenic, and recreational resources of North Carolina by including such resources in the state parks system for public enjoyment, education, and inspiration.
- Offer a wide range of safe and enjoyable outdoor recreation opportunities in the state parks system by developing and staffing appropriate public facilities.
- Support recreation opportunities provided by other agencies and local governments by offering training and technical assistance, and by administering grant programs for park, trail, and greenway acquisition and development.
- Maintain and enhance the ecological quality of park resources by conducting appropriate stewardship activities and by careful planning and management of visitor use patterns and park development projects.
- Promote understanding of and pride in the natural heritage of the state by providing environmental education and interpretive materials and programming for teachers, students, and park visitors.

#### **Twenty Years Ago**

At the end of 1993, the North Carolina State Parks System consisted of 58 units, totaling 135,738 acres, with annual attendance of 11,076,082 visitors. In 1993, voters approved a \$35 million state parks improvement bond referendum, and in 1994, the North Carolina General Assembly established the North Carolina Parks and Recreation Trust Fund (PARTF). The General Assembly made an initial appropriation of \$1 million to the PARTF to fund improvements in state parks, to fund grants for local governments and to increase public access to the state's beaches. In 1995, the General Assembly dedicated funds from the excise stamp tax to the trust fund starting in FY 1996-97.

Prior to the 1993 bond referendum and the establishment of the PARTF, land acquisition funding was sporadic, and opportunities to acquire new units were delayed or missed. Capital improvements were typically projects constructed by the Civilian Conservation Corps during the 1930's. The 1993 bond referendum and the establishment of the PARTF essentially put an end to the sleepy park system, and through the availability of a steady funding source, ushered in a park system that every North Carolinian can be proud of.

In addition to establishing a dedicated funding source, the General Assembly also added significantly to the state park operating budget. Sixty new maintenance positions were added, as well as 34 new office assistants. Falls Lake and Jordan Lake state recreation areas together added 26 new positions, and an additional 35 new ranger positions were added across the state. The General Assembly supported the staffing of new land and facilities that were added to the system.

#### **Ten Years Ago**

By the end of 2003, the status of the state parks system was quite different. The number of units had increased to 70, total acreage had increased to 172,815, and annual visitation was 11,210,836. Revenue to the trust fund for FY2002-2003 was \$28,484,354, of which \$12,571,570 was available for state park capital needs and \$5,387,816 was available for land acquisition. With bond and PARTF funding, many of the most urgent land inholdings and critical safety and health project needs were being addressed. The prospect of annual, recurring funds made it possible to conduct facility planning in a systematic, predictable way.

Meanwhile, funding had become available from other sources as well. The Natural Heritage Trust Fund, also funded by the excise stamp tax, provided grants for acquisition of lands with important natural and cultural resource value. The Clean Water Management Trust Fund, established in 1996, provides grants for acquisition of riparian buffer lands. Both of these trust funds have provided generous grants to the state parks system.

In addition, public support for protection of open space was growing. In 1999, Governor James B. Hunt proposed to permanently protect an additional one million acres of farmland, open space, and conservation lands in the State. In 2000, the state's General Assembly codified this goal in statute.

The time was right for a major expansion of the state parks system. The strategic directions in the 2000 Systemwide Plan were to complete the land acquisition and development envisioned in master plans for existing parks, and to add carefully selected new park units to the system. Criteria were identified, proposed sites were evaluated, and new units were added to enhance the system as a whole and to help the system fulfill its statutory purpose for future generations. Because PARTF was indexed to the real estate excise tax, the booming real estate market of the 2000's generated revenue exceeding projections. The legislature also authorized special indebtedness (bonds) for land acquisition. Prior planning made it possible for the division to take advantage of significant opportunities to add important new state parks, state natural areas, and state trails to the system.

#### **Today**

At the end of 2014, the situation changed again. The state parks system has grown to 74 units with a total of more than 224,000 acres. Attendance in 2014 was 15.6 million visitors. After nearly two decades of unprecedented growth, expansion of the North Carolina state parks system slowed considerably from 2009 through 2014 due to the depressed economy. Growth and capital development in the parks was also curtailed by reduced funding to the Parks and Recreation Trust. From 1999 through 2008, North Carolina established 15 new state park units and acquired 46,340 acres. From 2009 through 2014, no new units were established and 19,937 acres were added to the state parks system.

Like many states, North Carolina is suffering the lingering effects of the nationwide economic downturn. Long term goals for the state park system remain the same, yet the system's strategic directions have responded to the challenges of current times. From 2009 to 2014, the state parks system has implemented many improvements to efficiency and has contributed in significant ways to supporting job growth and economic development in North Carolina.

# STRATEGIC DIRECTION #1 CONTINUE EXPANSION OF THE STATE PARKS SYSTEM

Despite these economic challenges, the state parks system can continue to grow and improve. The recent economic downturn has reduced the funding available for land acquisition and facility development. Nevertheless, public support for open space protection and new park units remains high (Chapter 4). North Carolina continues to be an attractive place for development, and strong population growth is anticipated in the coming decades. There is a continuing need to protect important natural resources and to provide outdoor recreation opportunities. With reduced capital funds, there will be continued emphasis on careful planning and evaluation of statewide priorities to ensure the best use of more limited funding. As the state parks system moves closer to its 100<sup>th</sup> anniversary, new strategic planning efforts will be implemented to meet the demands of outdoor recreation and natural resource protection for the next 100 years.

#### **Five Year Goals**

#### **Land Protection**

- Develop a critical acreage plan for each park unit which identifies priority acquisitions.
- Develop a new State Park System expansion plan to meet the demands for a growing population and increased demands for outdoor recreation and natural resource protection.
- In developing the new expansion plan, incorporate subject matter experts in the development of the following themes: biological, geological, archaeological, scenic and recreational.
- Focus on protecting natural resource themes identified as priorities in Chapter 3 (Resource Evaluation) including fossils, caves and sinks, grass and heath balds, mafic glades and barrens, and brownwater floodplains.
- Implement priority land protection projects, with emphasis on completing existing parks, providing locations for facilities and protecting high priority resource themes.

#### **Planning**

- Identify recreational needs, prepare master plans and general management plans, establish statewide priorities, and administer a capital development program for planning, design and construction of park facilities, both at newly established and existing parks.
- Reinvigorate the General Management Program (GMP) by completing draft GMP's at park units with outdated plans.
- Update the Project Evaluation Program (PEP) to reflect current needs for funding capital improvement projects.

- Initiate master plan efforts at Elk Knob, South Mountains, Mayo River and Lumber River State Parks as well as Deep River State Trail.
- Complete the MST Master Plan and support the completion of a number of subsection plans.
- Complete planning for Vade Mecum at Hanging Rock State Park and newly acquired Hammocks Beach property.

# STRATEGIC DIRECTION #2 PROVIDE THE BEST POSSIBLE VISITOR EXPERIENCE

DPR can improve the quality of the park visitor's experience by better coordinating all aspects of the operation to focus on connecting visitors to the state's unique natural resources in a purposeful, planned manner.

The visitor experience has two components. The internal experience is the visitor's perspective, which is created by a combination of feelings, sensations and prior experiences. This is unique to every visitor. The external component consists of the many separate pieces outside the visitor – the road conditions in the park, the cleanliness of the campgrounds, the clarity and readability of park signs, and the friendliness of park staff are just a few examples. Integrating all these pieces is the key to providing great visitor experiences.

The division is made up of many individual programs, each responsible for a part of the visitor's experience: operational policies, park design, constructed facilities, natural resource management, recreational activities, visitor services, interpretation, trails, signage, brochures, public information, and others. By focusing on collaboration and coordination among these programs, DPR seeks to provide purposeful, consistent, authentic experiences for visitors.

## **Five Year Goals**

#### Administration

- Update visitor use and preference studies on a regular basis. Include studies on park users and non-users.
- Use internet-based software to collect user feedback to better plan for park facilities and to improve visitor experiences. Modernize and improve customer service capabilities with the new on-line centralized reservation system.
- Use a wide range of data from the centralized reservation system to identify trends and visitor demand in order to better target capital development to visitor needs.
- The division's Public Information Office, Interpretation and Education (I&E) Program, the Exhibits Program, and field staff will collaborate to improve the ways the public connects to park natural resources through the agency's various publications, brochures, signs and website.
- Re-launch website every three years with updated content and design. First overhaul will be completed in 2015.

#### **Engineering**

Give priority to providing basic public services at every park and to expanding accessibility for all
people to state park facilities. All new projects will provide accessibility in accordance with the

standards of the American Disabilities Act.

#### **Grants and Recreation Outreach**

- The survey of recreational resource needs (Chapter 4 and Appendix C) found that some user groups with unmet needs expressed an interest to help the parks system develop and maintain the facilities they desire to use. Provided that the facility type is in accordance with the division's mission and is properly designed and sited such requests should be considered.
- Track international, national, and statewide recreation trends.

## **Planning**

- Provide for effective wayfinding designs as part of park master plans.
- Integrate trail routing and design with interpretation and education themes for each park.
- Provide a variety of opportunities for public input in the facility planning process.

## STRATEGIC DIRECTION #3 INCREASE EFFICIENCY

The recent rapid growth of the state parks system, increased visitation, and high public interest in Division services has placed great demands on DPR's resources and capabilities. DPR operates and maintains state park units open to the public 364 days per year (all park units are closed on Christmas Day), including law enforcement, public safety, education, natural resource protection, and visitor services. In addition, much work remains to be done to acquire, plan, staff, and develop newly established park units. The recent economic downturn has not provided opportunities for DPR to increase staffing and the system's growth threatens to outpace the agency's capabilities.

The division's challenge will be to manage the rapid growth of the parks system while maintaining excellence in state park operations and stewardship. It will be essential to increase DPR's organizational effectiveness, and to foster efficient use of funds and resources available to the division.

## **Five Year Goals**

#### **Land Protection**

- Pursue a range of funding sources in addition to the state trust funds, including donations, bargain sales, and federal grants.
- Complete land data management system and ensure all information is accurate and included in the new system.
- Streamline and improve the land acquisition process including planning and setting priorities, as well as collaboration with private land trust partners, the State Property Office, and staff of the state conservation trust funds.

#### **Planning and Engineering**

- Pursue multiple funding opportunities for modifications to existing facilities.
- Coordinate with other recreation providers to avoid duplication of services.
- Emphasize maintenance to extend the life of facilities and to protect public investments.
- Design sites and facilities to minimize staff travel distances and patrol time, to streamline maintenance costs, and to reduce energy costs.
- Pursue new technologies appropriate for state parks construction, maintenance, and operation.
  Explore using recycled materials, low waste systems, renewable energy and energy savings. Use
  environmentally friendly materials. All facilities larger than 5,000 square feet will be LEEDcertified and all others will use "green" building standards as a guide for project design and
  construction.

 Improve interdisciplinary collaboration in project planning in order to target projects to identified needs, to identify constraints early, and to identify potential efficiencies and cost savings.

#### **Information Technology**

- Communication and data sharing among the division's multiple field offices and remote sites will be improved with web-based data sharing.
- All programs will work to improve integration of multiple data sources and formats, including budget data, visitor use statistics, GIS data, and natural resource inventory.
- Take advantage of technological advances to improve park operations, both in the central office and in the field.
- Continue to develop and implement the division-wide fiscal data management system.
- Automate and streamline data collection, management and sharing.

#### Administration

- Develop ways to identify, track and demonstrate cost efficiencies.
- Strengthen leadership training throughout the Division by encouraging completion of the Certified Public Managers Program or other leadership programs such as the Natural Resources Leadership Program offered by North Carolina State University.
- Friends of State Parks, Inc. (FSP) is a nonprofit 501(c)3 corporation organized in 1973 by a group of concerned citizens to support North Carolina State Parks. FSP works to promote the following areas for DPR: providing outreach on issues affecting state parks; advocating to improve the state parks system; coordinating a volunteer workforce to support programs and other initiatives; leveraging private sector contracting mechanism to address urgent, innovative or singular needs not suited to government purchasing processes; partnering with other organizations and private companies to achieve a shared objective; stimulating and unifying local Friends groups; raising money to enhance government funding; providing a means to request and administer legacy gifts or other investment opportunities. The Division will work with the FSP to strengthen the operation of the FSP and improve the capacity of the Friends to support the state parks system.
- Use the website to provide public information. Maps, brochures, reports, and newsletters will be increasingly formatted for web distribution, although the Division will continue to provide printed materials.
- Explore the use of new communication opportunities, such as Facebook, Twitter, RSS, and other technological innovations. As new communications methods become available and are embraced by the public, state parks will explore and initiate utilization

- Develop a new database to collect and compile interpretation and education statistics, to better target services and facilities.
- Explore ways to use available youth corps workers, to enhance volunteer recruitment and retention, to train volunteers to work independently in long-term positions, and in other ways to reduce labor costs and to allow state park units to operate more efficiently.
- Increase the number of volunteers systemwide by 50 percent.
- Increase total number of volunteer hours by 25 percent.
- Work with Departmental Human Resources to improve/streamline the hiring process.
- Work with Departmental Budget and Human Resources Department to remedy pay inequities.

## **Operations**

- Continue to improve and enhance the centralized reservation system to improve both efficiency and customer service.
- Use the central warehouse to increase efficiencies in purchase and distribution of supplies and materials.
- Over time, as funding allows, convert vehicle fleet to more fuel-efficient vehicles. Evaluate use of vehicles and develop ways of reducing vehicle and fuel costs.
- Evaluate energy use patterns in buildings to identify cost-saving measures; including replacing the existing lighting in exhibit halls with more efficient LED lighting.
- Request an increase in the cost threshold for requiring the competitive bidding process for small repair and renovation projects to streamline the process and reduce costs.
- Reduce workman compensations by 50 percent.

## Interpretation and Education

- Implement digital asset management system to improve coordination and timeliness of projects.
- Explore ways of restructuring the program to best meet systemwide management needs, and to reduce travel costs.
- Inventory and evaluate signage in parks so that data is available for use when maintenance projects are begun.

• Identify energy efficiency improvements in museums and incorporate these into museum maintenance projects.

#### **Human Resources**

 Improve personnel retention, thus reducing staff turnover, hiring and training expenses, by pursuing salary improvements for critical classes of employees commensurate with increasingly complex responsibilities.

### **Grants and Recreation Outreach**

- Continue to automate and streamline administration of all grant programs to reduce costs and to improve accountability and transparency, when appropriate.
- Better educate local governments with regard to the PARTF and LWCF programs and the administration of the programs, through training seminars, web site, and Recreation Resources Services.

# STRATEGIC DIRECTION #4 SUPPORT LOCAL ECONOMIC DEVELOPMENT

Even before the most recent economic downturn, the state's rural areas have been increasingly turning to ecotourism for economic growth and stability. The state parks are important regional attractions that can form the cornerstone of these local efforts. In addition, DPR can support local economic development by participating in local and regional tourism initiatives, by coordinating multi-jurisdictional recreation planning, by offering grants for local park and trail projects, and by providing environmental education opportunities for schools and universities.

The division will look for innovative ways to support local economic development, while adhering to the mission and long term goals of the state parks system, keeping public costs reasonable, and avoiding competition with the private sector.

## **Five Year Goals**

## **Operations**

- Explore ways to increase support for and participation in community festivals, regional tourism initiatives, local planning projects, and youth job projects.
- Actively seek community input to park planning efforts.

#### **Grants and Recreation Outreach**

- Administer the NC Parks and Recreation Trust Fund local grant program and, the federal Land and Water Conservation Fund grant program.
- Support continued and expanded funding for these programs to enhance recreation and ecotourism development at the local level.
- Better educate local governments in regards to the positive local economic impact of improving parks and recreation services and facilities.
- Encourage local governments to track economic impact of recreation services and facilities.

#### **Trails Program**

- Continue working with federal, state, local and private partners to prepare regional trail plans that increase the value of local trail investments by creating larger regional connections.
- Work with local partners to provide grant funding and technical assistance for the implementation of trail and greenway projects.

- Complete the Mountains to Sea State Trail Master Plan and support the completion of a number of subsection plans.
- Update the Division website to disseminate information on trail and greenway opportunities available across the state from various recreation providers.

#### **Interpretation and Education**

- Increase partnerships with local school districts by offering educational programming targeted toward K-12 teachers and students.
- Partner with universities by making appropriate sites available for college-level field visits and research, and by exploring ways to fund research needed for park management.
- Revise and expand the basic EELEs, and place field-tested EELE activities on the division's
  website so that educators can search a database and download activities to meet the learning
  needs of their students.
- Improve the availability of park resources for education by developing a systematic, coordinated approach for disseminating information about interpretation and education programs, interpretive exhibits and brochures and EELEs to teachers, scout leaders and other appropriate individuals.

## STRATEGIC DIRECTION #5 SUPPORT STATE AND LOCAL HEALTH AND WELLNESS INITIATIVES

Studies show the average American boy or girl spends just four to seven minutes in unstructured outdoor play each day, and more than seven hours each day in front of an electronic screen. This lack of outdoor activity has profoundly impacted the wellness of our children. Childhood obesity rates have more than doubled in the last 20 years; the United States has become the largest consumer of ADHD medications in the world; and pediatric prescriptions for antidepressants have risen precipitously. The Division will develop partnerships with public and private health organizations to explore ways to use the state parks to encourage physical activity and healthy lifestyles.

#### **Five Year Goals**

## **Operations Section**

- Continue to sponsor first day hikes and initiate other Centennial hiking events.
- Explore partnerships with healthcare providers to promote and encourage physical activity especially related to hiking biking and jogging.

## **Trails Program**

• The DPR will initiate a Strategic Plan for State Trails throughout North Carolina to promote healthy lifestyles through access to trails.

# STRATEGIC DIRECTION #6 IMPROVE NATURAL AND CULTURAL RESOURCE STEWARDSHIP

The ecosystems and cultural features protected by the state parks system often represent the highest quality examples of the state's natural landscape and cultural heritage. In many cases, these ecosystems and cultural features are also among the most threatened. The Division of Parks and Recreation is responsible for the protection of the natural and cultural resources within the state parks system. The primary objective of the Division's natural resource management initiatives is to correct or compensate for the disruption of natural processes caused by human activities. These initiatives include the reintroduction of natural fire regimes, restoration of natural communities, and removal of exotic invasive species. The primary goal of cultural resource management is to protect and preserve historically significant features.

## **Five Year Goals**

#### **Planning**

- Work with biologists to develop a geographic information system based natural community dataset. This dataset will form the basis for documenting natural community types and planning restoration efforts.
- Ensure all park facilities will be designed, constructed, and maintained to avoid direct and indirect adverse impacts to high quality natural communities, rare plant and animal species, major archaeological sites, and other significant natural and cultural resources.

#### **Natural Resources**

- Develop park fire prescriptions for all areas known to support communities with fire adaptive species. Apply prescribed fire on all areas with an appropriate natural fire return interval.
- Develop timber management plans for restoring damaged forests. Plans will include a description of existing conditions, restoration goals, monitoring objectives and public involvement
- Develop a GIS-based inventory of exotic invasive species.
- Develop a strategic plan for controlling exotic invasive species throughout the park system.
- Partner with universities by making appropriate sites available for college-level field visits and research, and by exploring ways to fund research needed for park management.
- Develop management plans for each State Natural Area. Management plans will include objectives for the natural areas, land protection goals and protection plan for significant cultural and natural features.

- Ensure appropriate fire and exotic invasive species management training is available for field staff.
- All new seasonal fire staff will receive training on chainsaw, off-road vehicle usage, heat exhaustion, and other fire safety.
- Pre-fire briefings will discuss how to prepare for any emergencies on the fire line.

## **Operations**

- Ensure all appropriate park staff have training in fire and exotic species management. Where appropriate, a Division certified burn boss should be trained for each unit.
- Each park will schedule an annual meeting with Natural Resources and NC Forest Service staff to review the park fire management plan and goals for prescribed fire.
- Each park should designate a staff liaison to coordinate with Natural Resources staff and take a lead on natural resource management initiatives.

## STRATEGIC DIRECTION #7 INCREASE REVENUE GENERATION

The most recent economic downturn accentuated the need for increased revenues as state resources have been continually stretched. By increasing revenues, DPR can position itself to absorb potential reductions in appropriations. Continued cuts to DPR have resulted in an overarching demand for services and challenges to meet visitor needs. Offsetting these cuts with increased revenues will allow DPR to continue to be a regional attraction and offer affordable amenities.

## **Five Year Goals**

#### Administration

- Work with the Department and the General Assembly to remove barriers to promote flexibility in pricing of DPR services.
- Identify current revenue generating activities and work to identify how these can be increased and future revenues realized.
- As contracts, such as Chimney Rock, come up for renewal, ensure the DPR is maximizing revenues and percentages from each contract.
- Increase the number of concession contracts systemwide by 50 percent
- Increase concessions revenues by 40 percent.
- Increase web store sales by 200 percent.
- Increase purchase for re-sale in park by 300 percent.
- Implement a flexible fee schedule to maximize revenues in accordance with supply and demand.

#### **Planning**

• Work with Administration to identify activities which maximize revenue and incorporate those activities into future planning efforts.

### **Operations**

 Work with local vendors such as kayak, canoe rentals, food trucks and other contract amenities to increase revenues.

# STRATEGIC DIRECTION #8 EXPAND MARKETING EFFORTS

The North Carolina State Parks system could be considered one of the state's best kept secrets. Although the current visitation is not insignificant at 14 million per year, the visitation rates have stabilized over time. The DPR needs to continually promote the numerous qualities which make it an attraction and source of joy for numerous citizens of North Carolina and visitors to the state. The DPR must continue to attract visitors and look to groups who are underserved as park users.

## **Five Year Goals**

#### Administration

- Complete and follow annual marketing report and plan.
- Develop initial primary corporate partnership and expand by a minimum of 50 percent each year.
- Provide marketing strategy and support for the continued development, professionalism and increase financial stability and viability of Friends of State Parks.
- Develop fully-functional marketing program with 3-person staff.
- Have established 6-figure marketing budget.
- Complete planning and begin implementation of Centennial events
- Complete planning and begin implementation of capital campaign (private and state)
- Continue working with marketing firm (MSA) to develop and implement NC Parks' marketing plan and branding

#### **Grants and Recreation Outreach**

- Increase outreach efforts to local governments to better inform them of available grant opportunities through state and federal grant programs.
- Expand efforts to local governments that have never applied or have not received a grant in the past five years.